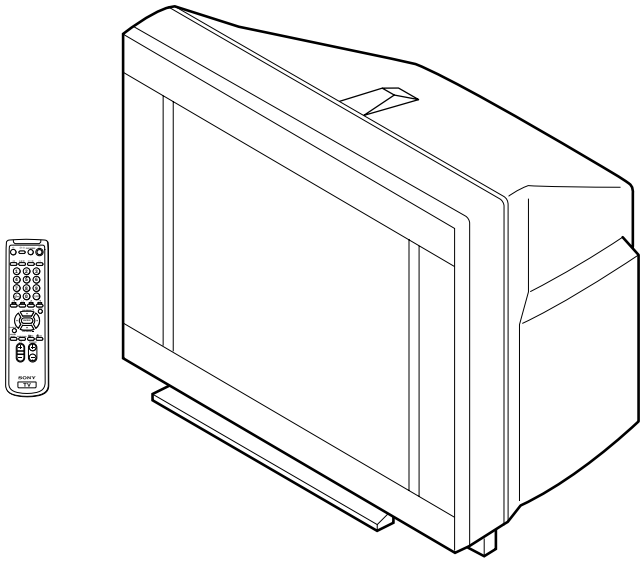
Self Diagnosis Supported model

SERVICE MANUAL

BG-3R CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-XA29M66	RM-953	Singapore	SCC-U39A-A				



TRINITRON ® COLOR TV

SONY ®

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SPECIFICATIONS

		Note
Power requirements	110-240 V AC, 50/60 Hz	
Power consumption (W)	Indicated on the rear of the TV	
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
Stereo/Bilingual system	NICAM Stereo Bilingual B/G, I; A2 Stereo Bilingual (German) B/G	
Television system	English, Arabic, French	
Channel coverage		
B/G	VHF: E2 to E12 / UHF: E21 to E69 / CATV: S01 to S03, S1 to S41	
I	UHF: B21 to B68 / CATV: S01 to S03, S1 to S41	
D/K	VHF: C1 to C12, R1 to R12 / UHF: C13 to C57, R21 to R60 CATV: S01 to S03, S1 to S41, Z1 to Z39	
M	VHF: A2 to A13 / UHF: A14 to A79 / CATV: A-8 to A-2, A to W+4, W+6 to W+84	
(Antenna)	75-ohm external terminal	
Audio output (Speaker)	8W + 8W	10% distortion
Number of terminal		
(Video)	Input: 3* Output: 1	Phono jacks; 1 V_{P-P}, 75 ohms
(Audio)	Input: 3* Output: 1	Phono jacks; 500 mVrms
(S Video)	Input: 2	Y : 1 Vp-p, 75 ohms, unbalanced, sync negative C : 0.286 Vp-p, 75 ohms
(Component Video)	Input: 1	Phono jacks Y : 1 Vp-p, 75 ohms, sync negative C_B : 0.7 Vp-p, 75 ohms C_R : 0.7 Vp-p, 75 ohms Audio : 500 mVrms
(Headphones)	Output: 1	minijack
Picture tube	29 inch	
Tube size (cm)	72	Measured diagonally
Screen size (cm)	68	Measured diagonally
Dimension (w/h/d, mm)	722 x 576 x 516	
Mass (kg)	50	

Design and specifications are subject to change without notice.

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SELF DIAGNOSTIC FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER lamp will automatically begin to flash.
The number of times the lamp flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER lamp flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

1. DIAGNOSTIC TEST INDICATORS

When an errors occurs, the STANDBY/TIMER lamp will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

Result for all of the following diagnostic items are displayed on screen. No error has occured if the screen displays a "0".

Diagnostic Item Description	No. of times STANDBY/TIMER lamp flashes	Self-diagnostic display/Diagnostic result	Probable Cause Location	Detected Symptoms
• Power does not turn on	Does not light	—	• Power cord is not plugged in. • Fuse is burned out F4601 (F)	• Power does not come on. • No power is supplied to the TV. • AC power supply is faulty.
• +B overcurrent (OCP) or overvoltage (OVP) • Vertical deflection stopped • Horizontal deflection overdrive	2 times	002:000 or 002:001~255 003:001~255 004:001~255 at the same time	• H.OUT Q511 is shorted. (A board) • Q701, Q702, Q703 is shorted (C6 board) • -13V is not supplied. (A board) • IC 503 faulty (A board)	• Power does not come on. • Load on power line is shorted. • Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
• White balance failure (no PICTURE)	5 times	005:000 or 005:001~225	• G2 is improperly adjusted. (Note 2) • CRT problem. • R(Q703), G(Q702) or B(Q701) out is faulty (C6 board) • IC301 is faulty. (A board) • No connection A board to C6 board.	• No raster is generated. • CRT cathode current detection reference pulse output is small.
• Micro reset	—	101:00 or 101:001~225	• Discharge CRT (C6 Board) • Static discharge • External noise	• Power is shut down shortly, after this return back to normal. • Detect Micro latch up.

Note 1: If a + B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously.
The symptom that is diagnosed first by the microcontroller is displayed on the screen.
Note 2: Refer to screen (G2) Adjustment in section 3-4 of this manual.
* R(Q703), G(Q702) or B(Q701) out is faulty (C6 board).

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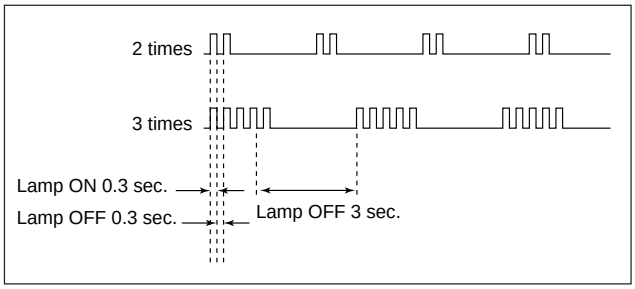
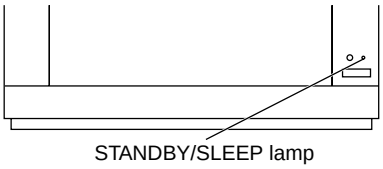
2. DISPLAY OF STANDBY/TIMER LIGHT FLASH COUNT



Diagnostic Item	Flash Count*
+B overcurrent/overvoltage Vertical deflection stopped	2 times
White balance failure	5 times

* One flash count is not used for self-diagnostic.



3. STOPPING THE STANDBY/TIMER FLASH

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER lamp from flashing.

4. SELF-DIAGNOSTIC SCREEN DISPLAY

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurances of failure for confirmation on the screen:

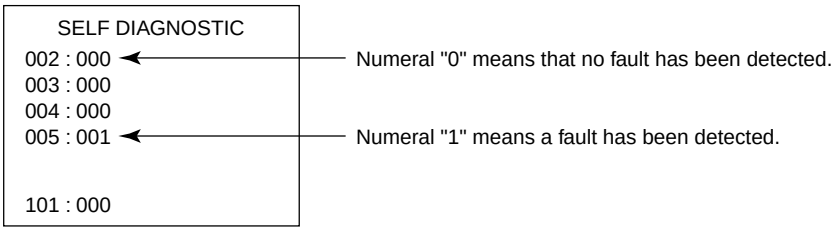
[To Bring Up Screen Test]
In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:

Screen display ➡ channel 5 ➡ Sound volume - ➡ Power ON

⇧

Note that this differs from entering the service mode (mode volume +).

Self-Diagnosis screen display


SELF DIAGNOSTIC
002 : 000
003 : 000
004 : 000
005 : 001
101 : 000
Numeral "0" means that no fault has been detected.
Numeral "1" means a fault has been detected.

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5. HANDLING OF SELF-DIAGNOSTIC SCREEN DISPLAY

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to “0”.

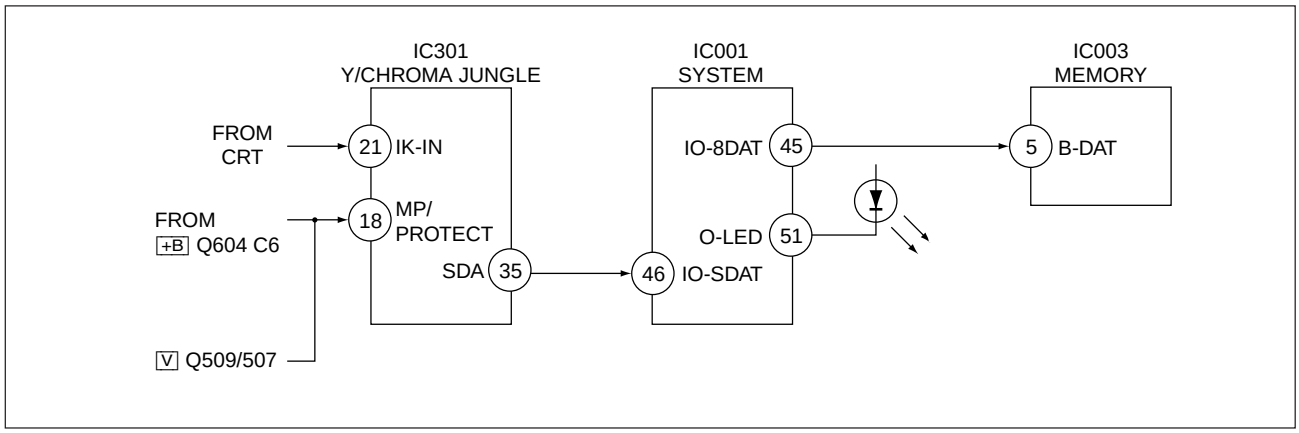
Unless the result display is cleared to “0”, the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

[Clearing the result display]
To clear the result display to “0”, press buttons on the remote commander sequentially as shown below when the diagnostic screen is being displayed.

Channel [8] ➡ 0

[Quitting Self-diagnostic screen]
To quit the entire self-diagnostic screen, turn off the power switch on the remote commander or the main unit.

6. SELF-DIAGNOSTIC CIRCUIT



+B overcurrent (OCP)	Occurs when an overcurrent on the +B(135) line is detected by Q604. If Q604 go to ON and the voltage to pin 18 of IC301 should go down when V.SYNC is more than seven verticals in a period, the unit will automatically turn off.
Vertical deflection stopped	Occurs when an absence of the vertical deflection pulse is detected by Q509 and IC001 shut down the power supply.
Vertical deflection overcurrent	Occurs when an overcurrent on V drive line is detected by Q507. Power supply will be shut down when detect this by IC001.
White balance failure	If the RGB levels* do not balance or become low level within 5 seconds, this error will be detected by IC301. TV will stay on, but there will be no picture. * (Refers to the RGB levels of the AKB detection Ref pulse that detects IK.)

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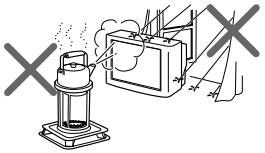
The operating instruction mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

WARNING

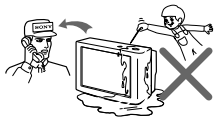
- Dangerously high voltages are present inside the TV.
- TV operating voltage: 110 – 240 V AC. (For Malaysia only: 220 – 240 V AC).

For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.

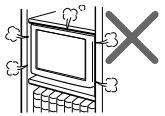
For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.



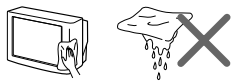
To prevent fire or shock hazard, do not expose the TV to rain or moisture.



Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.

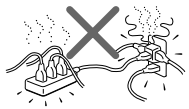


Do not block the ventilation openings of the TV. Do not install the TV in a confined space, such as a bookcase or built-in cabinet.

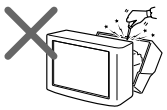


Clean the TV with a dry and soft cloth. Do not use benzine, thinner, or any other chemicals to clean the TV. Do not scratch the picture tube.

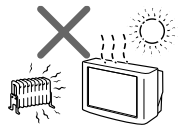
Pull the power cord out by the plug. Do not pull the power cord itself. Disconnect the TV before moving it or if you are not going to use it for several days.



Do not plug in too many appliances to the same power socket. Do not damage the power cord.



Do not open the cabinet and the rear cover of the TV as high voltages and other hazards are present inside the TV. Refer servicing and disposal of the TV to qualified personnel.

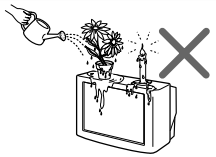


Your TV is recommended for home use only. Do not use the TV in any vehicle or where it may be subject to excessive dust, heat, moisture or vibrations.

SECTION 1
GENERAL

WARNING (continued)

Do not install the TV in an unstable position. Use a proper TV stand.



Do not place any objects on the TV.

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Getting Started

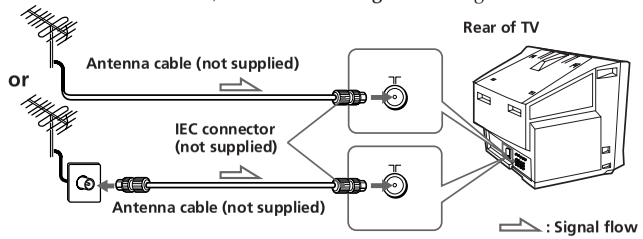
CAUTION

- Do not connect the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.
- To avoid battery leakage and damage to the remote, remove the batteries from the remote if you are not going to use it for several days. If any liquid that leaks from the batteries touches you, immediately wash it away with water.

Step 1

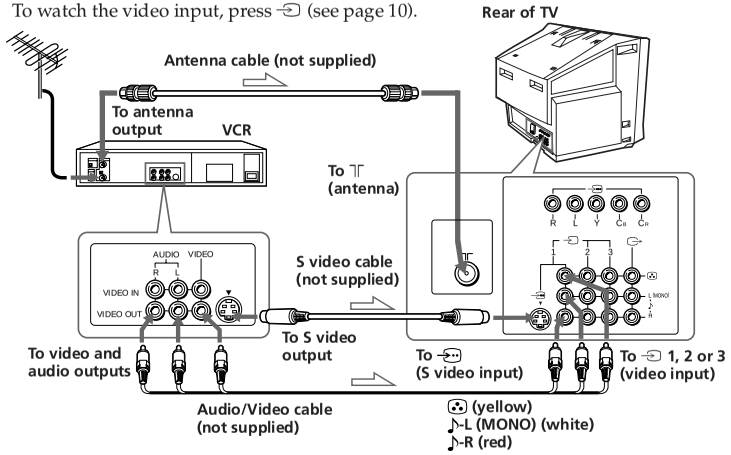
Connect the antenna

If you wish to connect a VCR, see the **Connecting a VCR** diagram below.



Connecting a VCR

To watch the video input, press ⊜ (see page 10).

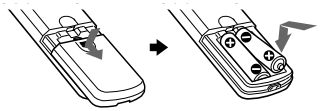


Notes

- If you connect a monaural VCR, connect the yellow plug to (the yellow jack) and the black plug to ♪-L (MONO) (the white jack).
- If you connect a VCR to the ⊤ (antenna) terminal, preset the signal output from the VCR to the program number 0 on the TV.
- If both ⊜ (S video input) and ⊜ 1 (video input) at the rear of your TV are input at the same time, the ⊜ (S video input) is automatically selected. To view ⊜ 1 (video input), disconnect the S video cable.
- Do not connect video equipment to ⊜ 3 (video input) at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.
- When no signal is input to the connected video equipment, the TV screen becomes blue.

Step 2

Insert the batteries into the remote



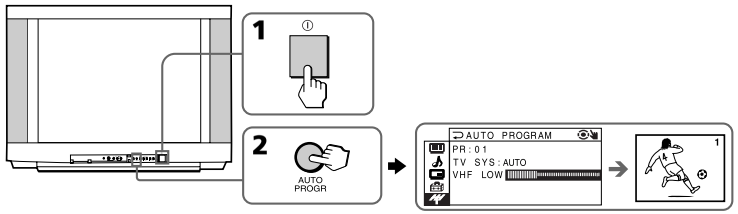
Note

- Do not use old batteries nor use different types of batteries together.

Step 3

Preset the channels automatically

Front of TV



Tips

- If you want to stop the automatic channel presetting, press MENU.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 32).

Note (KV-XA34M84 only)

- During automatic channel presetting, your TV screen will indicate "B/G", "I", "D/K" or "M" for the TV system ("TV SYS").

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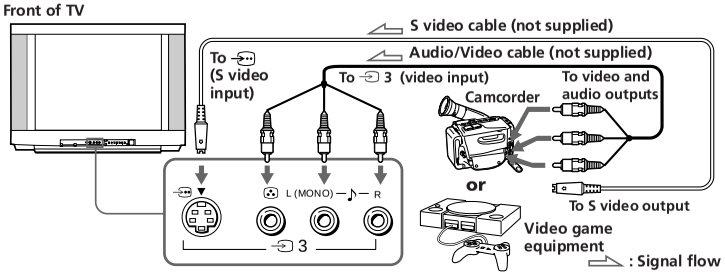
Connecting optional components

You can connect optional audio/video components, such as a VCR, multi disc player, DVD, camcorder, video game or stereo system. To watch the picture of the connected equipment, press ⊖ (see page 10).

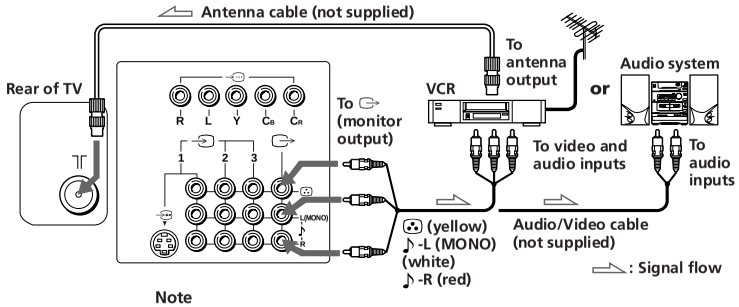
Connecting a camcorder/video game equipment using the ⊖ (video input) jacks



Notes

- You can also connect video equipment to the ⊖ 1, 2 or 3 (video input) jacks at the rear of your TV.
- If both ⊖ (S video input) and ⊖ 3 (video input) at the front of your TV are input at the same time, the ⊖ (S video input) is automatically selected. To view ⊖ 3 (video input), disconnect the S video cable.
- Do not connect video equipment to the ⊖ 3 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.

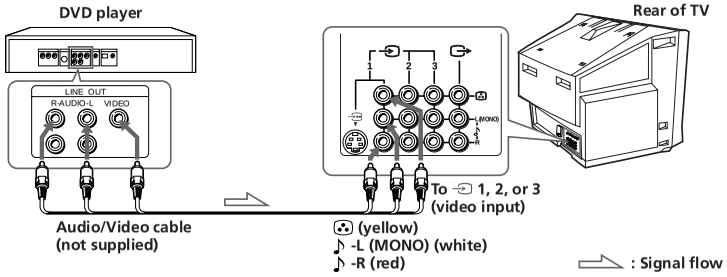
Connecting audio/video equipment using the ⊖ (monitor output) jacks



Note

- If you select "DVD" on your TV screen, no signal will be output at the ⊖ (monitor output) jacks (see page 10).

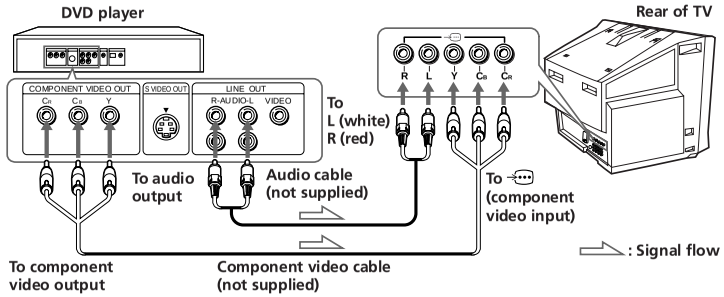
Connecting a DVD player using the ⊖ (video input) jacks



Connecting a DVD player using the ⊖ (component video input) jacks

1 Connect R and L under ⊖ (component video input) on your TV to the LINE OUT, AUDIO R and L output connectors on your DVD player.

2 Using a component video cable, connect Y, C_B, and C_R under ⊖ (component video input) on your TV to the COMPONENT VIDEO OUT Y, C_B, and C_R output connectors on your DVD player.



Notes

- Some DVD player terminals may be labeled differently:

Connect	To (on the DVD player)
Y (green)	Y
C_B (blue)	C_b, B-Y or P_B
C_R (red)	C_r, R-Y or P_R

- Since the high quality pictures on a DVD disc contain a lot of information, picture noise may appear. In this case, adjust the sharpness ("SHARP") in the "ADJUST" menu of the "PICTURE MODE" menu (see page 25).
- Connect your DVD player directly to your TV. Connecting the DVD player through other video equipment will cause unwanted picture noise.

KV-XA29M66
RM-953

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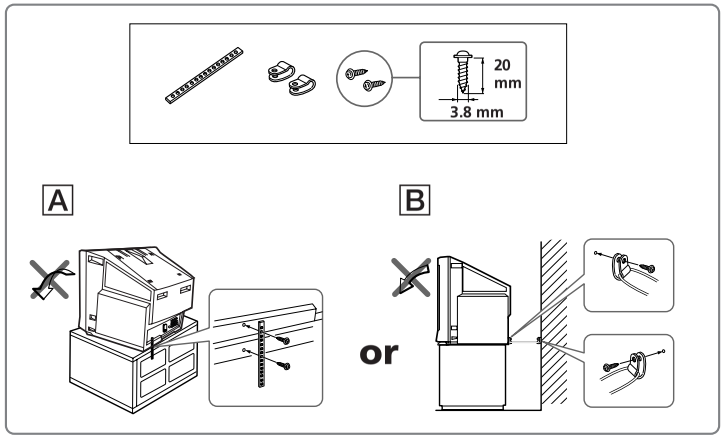
Securing the TV

To prevent the TV from falling, secure the TV using one of the following methods:

A With the supplied screws, attach the band to the TV stand and to the rear of the TV using the provided hole.

or

B Put the cord or chain through the clamps to secure the TV against a wall or pillar.

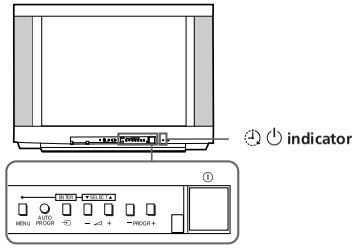


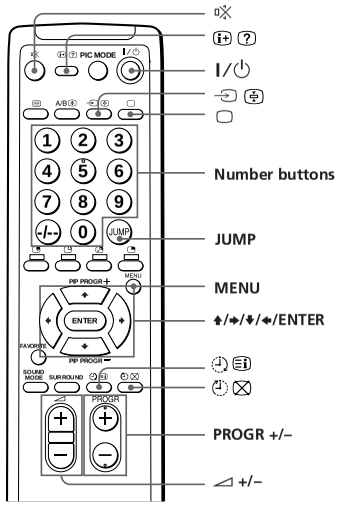
Note

- Use only the supplied screws. Use of other screws may damage the TV.

Watching the TV

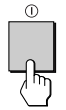
This section explains various functions and operations available while watching the TV. Most operations can be done using the remote.





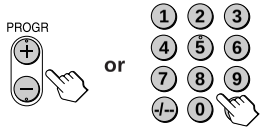
1 Press ⏻ to turn on the TV.

When the TV is in the standby mode (the ⏻ indicator on the TV is lit red), press I/⏻ on the remote or PROGR +/– on the TV.



2 Press PROGR +/– or number buttons to select the TV program.

For double digit numbers, press -/--, then the number (e.g., for 25, press -/--, then 2 and 5).



To select a TV program quickly

(1) Press and hold PROGR +/–.
(2) Release PROGR +/– when the desired program number appears.

Note

- When you select a TV program quickly, the picture may be disrupted. This does not indicate a malfunction.

continued

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Additional tasks

To	Press
Turn off temporarily	I/⏻. The ⏻ indicator on the TV lights up red.
Turn off completely	⏻ on the TV.
Adjust the volume	+/–.
Mute the sound	🔇.
Watch the video input (VCR, camcorder, etc.)	⏎ to select "VIDEO 1", "VIDEO 2" , "VIDEO 3"or "DVD". To return to the TV program, press ▢ (or ⏎ on the TV).
Jump back to the previous channel	JUMP.
Display the on-screen information*	ⓘ.

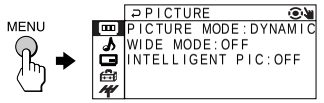
* The picture, sound, and either the program number or video mode are displayed. The on-screen display for the picture and sound information disappears after about 3 seconds.

Changing the menu language

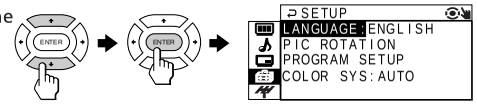
You can change the menu language as well as the on-screen language.

For details on how to use the menu, see "Introducing the menu system" on page 21.

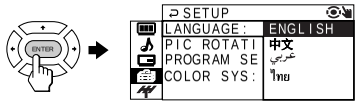
1 Press MENU.



2 Press ↑ or ↓ to select the "SETUP" icon (🧰), then press ENTER.

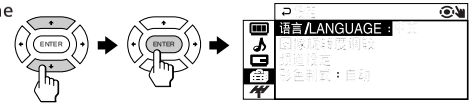


3 Make sure "LANGUAGE" is selected, then press ENTER.



4 Press ↑ or ↓ to select the desired language (e.g., "中文 "), then press ENTER.

The selected menu language appears.



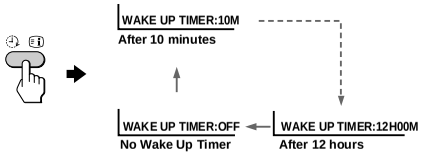
To return to the normal screen

Press MENU.

Setting the Wake Up timer

1 Press 🕘 until the desired period of time appears.

The Wake Up timer starts immediately after you have set it.



2 Select the TV program or video mode you want to display when you wake up.

3 Press ⏻ or set the Sleep timer if you want the TV to turn off automatically.

The 🕘 indicator lights up orange.

To cancel the Wake Up timer

Press 🕘 until "WAKE UP TIMER: OFF" appears or turn off the TV's main power.

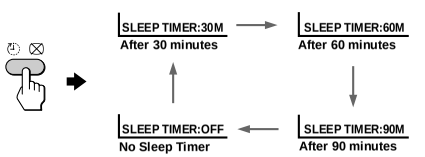
Note

- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into the standby mode. To continue watching the TV, press any button or control on the TV or the remote.

Setting the Sleep timer

Press 🕘 until the desired period of time appears.

The Sleep timer starts immediately after you have set it.



To cancel the Sleep timer

Press 🕘 until "SLEEP TIMER: OFF" appears or turn the TV off.

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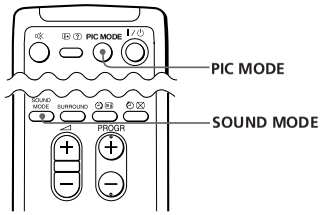
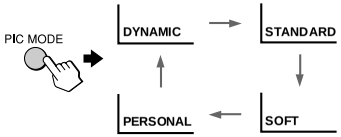
Selecting the picture and sound modes

You can select picture and sound modes and adjust the setting to your preference in "PERSONAL" option.



Selecting the picture mode

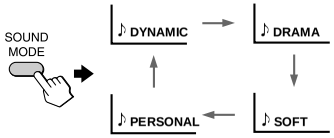
Press PIC MODE repeatedly until you get the desired picture mode.



Select	To
"DYNAMIC"	receive high contrast pictures.
"STANDARD"	receive normal contrast pictures.
"SOFT"	receive mild pictures.
"PERSONAL"	receive the last adjusted picture setting from the "ADJUST" option in the "PICTURE" menu (see page 24).

Selecting the sound mode

Press SOUND MODE repeatedly until you get the desired sound mode.



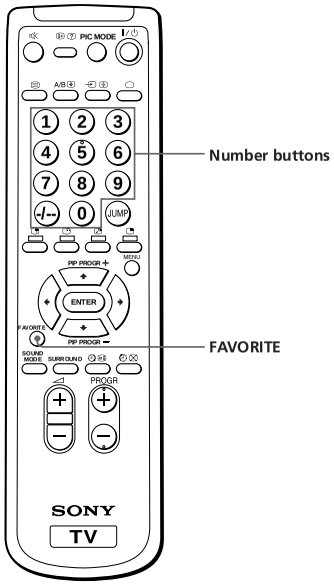
Select	To
"DYNAMIC"	listen to dynamic and clear sound that emphasizes the low and high tones.
"DRAMA"	listen to sound that emphasizes voice and high tones.
"SOFT"	receive soft sound.
"PERSONAL"	receive the last adjusted sound setting from the "ADJUST" option in the "SOUND" menu (see page 26).

Tip

- You can also set the picture and sound modes using the menu (see **Changing the "PICTURE" setting** on page 24 and **Changing the "SOUND" setting** on page 26).

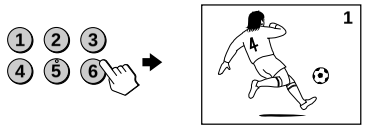
Viewing your favorite channels

You can display and select six of your favorite channels directly from your TV screen.



1 Press FAVORITE.

2 Press the number button from 1 to 6 to select the desired channel.



Tip

- To program your favorite channels, see **Adjusting each channel settings (PROGRAM SETUP)** on page 30.

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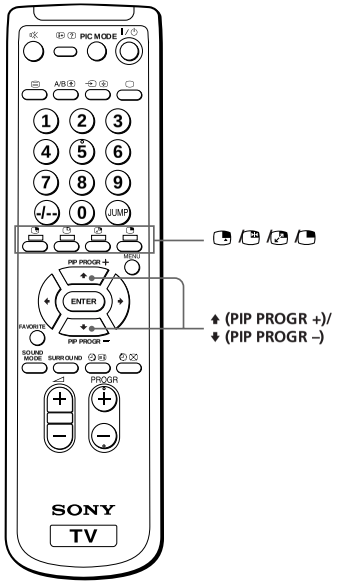
Watching two programs at the same time

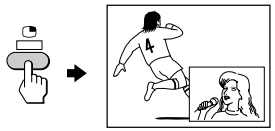
— PIP

With the Picture-in-Picture (PIP) feature, you can display a sub screen within the main picture of different TV programs or video inputs.



Displaying a sub screen

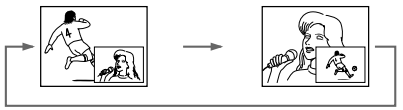
Press .



To return to the normal screen

Press (when displaying the sub screen).

Additional PIP tasks

To	Press
change a TV program in the sub screen	↑ (PIP PROGR +) or ↓ (PIP PROGR –).
select a video input in the sub screen	.
swap pictures between the main and sub screens	. 
freeze the sub screen	. To unfreeze the screen, press the button again.

Tips

- You can also display the sub screen and exchange pictures between the main and sub screens using the menu (see **Changing the "PIP" setting** on page 28).
- You can change the position of the sub screen (see **Changing the "PIP" setting** on page 28).

Notes

- When you display a video input on the sub screen at a faster/slower speed, the picture may be disrupted depending on the VCR type.
- If you display different color systems on the sub screen, the size of the sub screen may be different and the picture may be disrupted. This does not indicate a malfunction of the TV.

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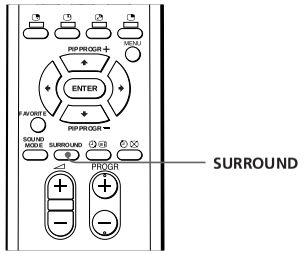
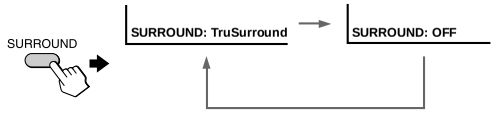
Listening with surround sound

The surround feature enables you to enjoy the sound effects of a concert hall or movie theater.



Press SURROUND repeatedly until you receive the desired surround sound.



Select	To
"TruSurround"	listen to the surround sound that spreads out to the rear of a room.
"OFF"	turn off the surround sound.

Tip

- You can also select the surround option using the menu (see **Changing the "SOUND" setting** on page 26).

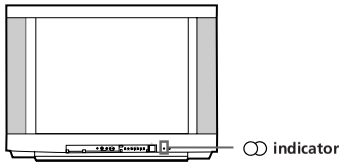
The surround of your TV is categorized as TruSurround.

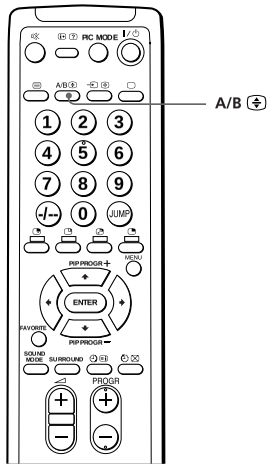
TruSurround™ is a trademark of SRS Labs, Inc. SRS and the SRS symbol are registered trademarks of SRS Labs, Inc. in the United States and selected foreign countries. SRS and TruSurround are incorporated under license from SRS Labs, Inc. and are protected under United States Patent Nos. 4,748,669 and 4,841,572 with numerous additional issued and pending foreign patents.

Enjoying stereo or bilingual programs

(KV–XA34M66/XA29M66 only)

You can enjoy stereo sound or bilingual programs of NICAM and A2 stereo systems.

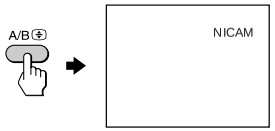




Press A/B repeatedly until you receive the sound you want.

The on screen display changes to show the selected sound.

The indicator on the TV lights up red when receiving any stereo or bilingual program.



When receiving a NICAM program

Broadcasting	On-screen display (Selected sound)
NICAM stereo	NICAM (Stereo sound) → MONO (Regular sound)
NICAM bilingual	NICAM MAIN (Main sound) → NICAM SUB (Sub sound) → MONO (Regular sound)
NICAM monaural	NICAM MAIN (Main sound) → MONO (Regular sound)

continued

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Enjoying stereo or bilingual programs (continued)

When receiving an A2 program

Broadcasting	On-screen display (Selected sound)
A2 stereo	MONO (Regular sound) → STEREO (Stereo sound)
A2 bilingual	MAIN (Main sound) → SUB (Sub sound)

Receiving area for NICAM and A2 programs

System	Receiving area
NICAM	Hong Kong, Singapore, New Zealand, Malaysia, Thailand, etc.
A2	Australia, Malaysia, Thailand, etc.

Notes

- If the signal is very weak, the sound becomes monaural automatically.
- If the stereo sound is noisy when receiving a NICAM program, select "MONO". The sound becomes monaural, but the noise is reduced.

If the sound is distorted when receiving a monaural program through the ⅂ (antenna) terminal

Press A/B repeatedly until "MONO" appears on the screen.

To cancel the monaural sound setting, press A/B again until "AUTO" appears on the screen.

MONO → AUTO

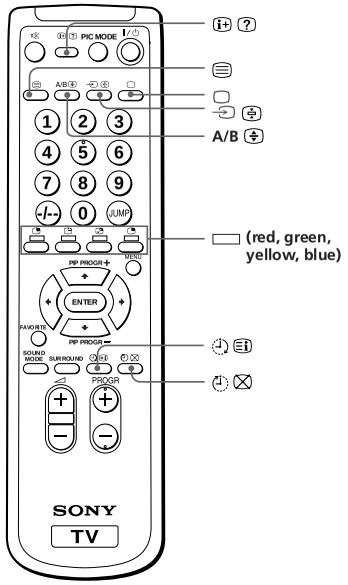
Notes

- The "MONO" or "AUTO" setting is memorized for each program position.
- You cannot receive stereo broadcast signal when the TV is in the "MONO" setting. Normally set the TV to "AUTO".

Viewing Teletext

(KV-XA34M66/XA29M66 only)

TV stations broadcast an information service called Teletext via some TV channels. Teletext allows you to receive various information, such as shares market or news.

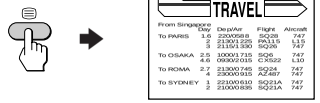


Displaying Teletext

1 Select a TV channel that carries the Teletext broadcast you want to watch.

2 Press ☰ to display the text.

A Teletext page (normally the index page) is displayed. If there is no Teletext broadcast, "100" is displayed at the top left corner of the screen.



To turn off Teletext

Press ▢.

continued

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Viewing Teletext (continued)

Additional Teletext tasks

To	Do this
display a Teletext page on the TV picture	Press ☰. Each time you press ☰, the screen changes as follows: Teletext → Teletext and TV → TV.
check the contents of a Teletext service	Press ☰i. An overview of the Teletext contents and page numbers appear on the screen.
select a Teletext page	Press the number buttons to enter the three-digit page number of the desired Teletext page.* If you make a mistake, reenter the correct page number. To access the next or previous page, press PROGR +/–.
hold (pause) a Teletext display	Press ⏯ to display the symbol "⏯" at the top left corner of the screen. To resume normal Teletext operation, press ⏯ or ☰.
reveal concealed information (e.g., an answer to a quiz)	Press ?. To conceal the information, press the button again.
enlarge the Teletext display	Press ⇳. Each time you press ⇳, the Teletext display changes as follows: Enlarge upper half → Enlarge lower half → Normal size.
wait for a Teletext page while watching a TV program	1 Enter the Teletext page number that you want to refer to, then press ⊠. 2 When the page number is displayed, press ☰ to show the text.

* You can also select a Teletext page that appears in the colored columns at the bottom of the screen using the corresponding color-coded buttons on the remote.

Using FASTEXT

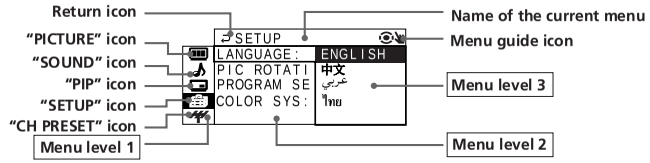
This feature allows you to quickly access a Teletext page that uses FASTEXT. When a FASTEXT program is broadcasted, the colored menus appear at the bottom of the screen. The colors of the menus correspond to the red, green, yellow, and blue color-coded buttons on the remote.

To access a FASTEXT menu

Press the color-coded button on the remote corresponding to the menu you want. The menu page appears on the screen after several seconds.

Introducing the menu system

The MENU button lets you open a menu and change the settings of your TV. Here's an overview of the menu system.



Level 1	Level 2	Level 3/Function
"PICTURE"	"PICTURE MODE"	Select the "PICTURE" mode: "DYNAMIC"→ "STANDARD"→ "SOFT"→ "PERSONAL"→ "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "PICTURE" → "COLOR"→ "BRIGHT"→ "HUE"→ "SHARP"
	"WIDE MODE"	Change the picture size.
	"INTELLIGENT PIC"	Optimize picture quality.
"SOUND"	"SOUND MODE"	Select the "SOUND" mode: "DYNAMIC"→ "DRAMA" → "SOFT" → "PERSONAL" → "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "BASS" → "TREBLE"→ "BALANCE"→ "BBE"*
	"SURROUND"	Select the "SURROUND" mode: "TruSurround" → "OFF"
	"INTELLIGENT VOL"	Adjust volume automatically.
"PIP"	"PIP POSITION"	Change the position of the sub screen.
	"PIP"	Display a sub screen within the main picture.
	"SWAP"	Exchange pictures between main screen and sub screen.
"SETUP"	"LANGUAGE"	Change the menu language: "ENGLISH" →"中文"(Chinese) → "عربي"(Arabic) → "ไทย" (Thai)
	"PIC ROTATION"	Rotate the picture.
	"PROGRAM SETUP"	Adjust each channel settings.
	"COLOR SYS"	Change the color system: "AUTO" → "PAL" → "SECAM" → "NTSC3.58" → "NTSC4.43"

continued

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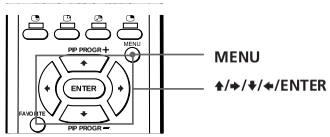
Level 1	Level 2	Level 3/Function
"CH PRESET"	"AUTO PROGRAM"	Preset channels automatically.
	"MANUAL PROGRAM"	Preset channels manually.
	"TV SYS"	Change the TV system: "B/G" → "I" → "D/K" → "M"

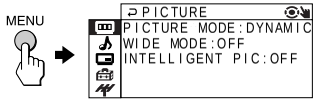
* The BBE is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. The word "BBE" and the BBE symbol are the trademarks of BBE Sound, Inc.

How to use the menu

You can use the buttons on the remote and on the TV as well to display the menu and adjust the settings.



1 Press MENU to display the menu.



2 Press ↑ or ↓ to select the desired item.

3 Press ENTER to confirm your selection and go to the next menu level.

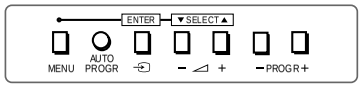
Other menu operations

To	Press
Adjust the setting value	↑,→,↓ or ←
Move to the next/previous menu level	→ or ←
Cancel the menu	MENU

Tips

- If you want to exit from Menu Level 2 to Menu Level 1, press ↑ or ↓ until the return icon (⮌) is highlighted, then press ENTER.
- Some of the menu items can be operated directly using the remote buttons.
- The MENU, ENTER, and SELECT ▼/▲ buttons on the TV can also be used for the operations above.

Front of TV



Notes

- If more than 60 seconds elapse between entries, the menu screen automatically disappears.

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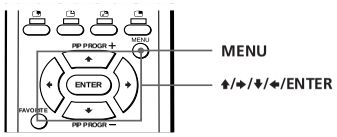
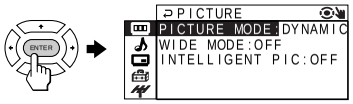
Changing the "PICTURE" setting

The "PICTURE" menu allows you to change the picture settings.

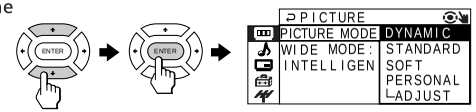


1 Press MENU.

2 Make sure the "PICTURE" icon ( ) is selected, then press ENTER.



3 Press ↑ or ↓ to select the desired item (e.g., "PICTURE MODE"), then press ENTER.



Select	To
"PICTURE MODE"	choose either "DYNAMIC", "STANDARD", "SOFT" "PERSONAL"*, or "ADJUST".
"WIDE MODE"	change the picture size when receiving wide-mode (16:9) picture signal. Press ↑ or ↓ to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.
"INTELLIGENT PIC"	optimize picture quality. Press ↑ or ↓ to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.

* When the "PERSONAL" mode is selected, you can receive the last adjusted picture settings from the "ADJUST" items (see page 25).

Note

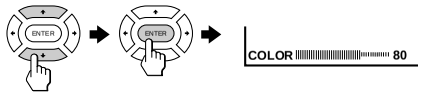
- For details on the options under "PICTURE MODE", see page 12.

To return to the normal screen

Press MENU.

Adjusting the "ADJUST" items under "PICTURE MODE"

1 Press ↑ or ↓ to select the desired item (e.g., "COLOR"), then press ENTER.



2 Adjust the value according to the following table, then press ENTER.

For	Press ↓/← to	Press ↑/→ to
"PICTURE"	decrease picture contrast	increase picture contrast
"COLOR"	decrease color intensity	increase color intensity
"BRIGHT"	darken the picture	brighten the picture
"HUE"*	increase red picture tones	increase green picture tones
"SHARP"	soften the picture	sharpen the picture

* You can adjust "HUE" for the NTSC color system only.

3 Repeat the above steps to adjust other items.

The adjusted settings will be received when you select "PERSONAL".

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 21.

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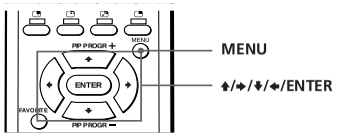
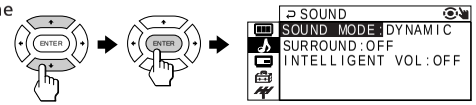
Changing the "SOUND" setting

The "SOUND" menu allows you to change the sound settings.

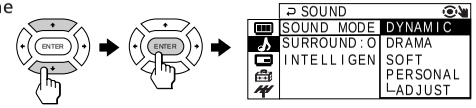


1 Press MENU.

2 Press ↑ or ↓ to select the "SOUND" icon (♪), then press ENTER.



3 Press ↑ or ↓ to select the desired item (e.g., "SOUND MODE"), then press ENTER.



Select	To
"SOUND MODE"	choose either "DYNAMIC", "DRAMA", "SOFT", "PERSONAL"*, or "ADJUST".
"SURROUND"	choose either "TruSurround" or "OFF".
"INTELLIGENT VOL"	adjust the volume of all TV programs and video inputs automatically. Press ↑ or ↓ to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.

* When the "PERSONAL" mode is selected, you can received the last adjusted sound settings from the "ADJUST" option (see page 27).

Tip

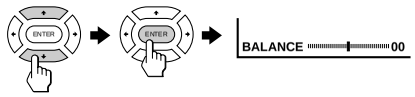
- For details on the options under "SOUND MODE" and "SURROUND", see pages 12 and 16 respectively.

To return to the normal screen

Press MENU.

Adjusting the "ADJUST" items under "SOUND MODE"

1 Press ↑ or ↓ to select the desired item (e.g., "BALANCE"), then press ENTER.



2 Adjust the value according to the following table, then press ENTER.

For	Press ↓/← to	Press ↑/→ to
"BASS"	decrease the bass	increase the bass
"TREBLE"	decrease the treble	increase the treble
"BALANCE"	increase the left speaker's volume	increase the right speaker's volume
"BBE"	select "HIGH" for higher enhancement of sound clarity; select "LOW" for lower enhancement of sound clarity; select "OFF" to turn off the BBE sound	

3 Repeat the above steps to adjust other items.

The adjusted settings will be received when you select "PERSONAL".

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 21.

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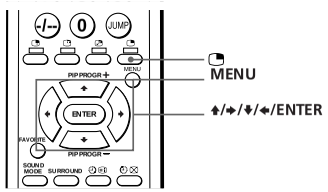
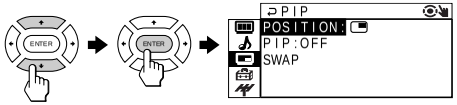
Changing the "PIP" setting

The "PIP" menu allows you to display a sub screen, change the sub screen position and exchange pictures between the main and sub screens.

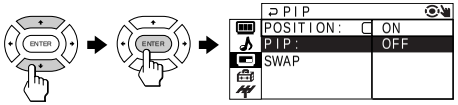


1 Press MENU.

2 Press ↑ or ↓ to select the "PIP" icon ( ), then press ENTER.



3 Press ↑ or ↓ to select the desired item (e.g., "PIP"), then press ENTER.



Select	To
"POSITION"	change the position of the sub screen. Press ↑ or ↓ to select the desired position, then press ENTER.
"PIP"	display a sub screen within the main picture. Press ↑ or ↓ to select "ON", then press ENTER. To cancel, press or select "PIP : OFF", then press ENTER. If you preset a locked channel, that channel will be unlocked automatically.
"SWAP"	exchange pictures between main screen and sub screen.

To return to the normal screen

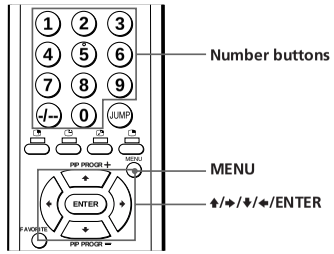
Press MENU.

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 21.

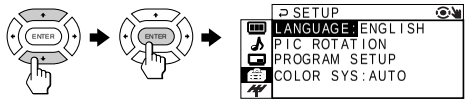
Changing the "SETUP" setting

The "SETUP" menu allows you to change the menu language, adjust the picture position, setup your program and select color system.

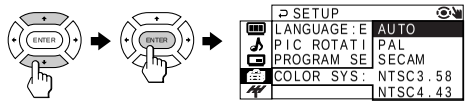


1 Press MENU.

2 Press ↑ or ↓ to select "SETUP" icon ( ), then press ENTER.



3 Press ↑ or ↓ to select the desired item (e.g., "COLOR SYS"), then press ENTER.



Select	To
"LANGUAGE"	change the menu language (see **Changing the menu language** on page 10).
"PIC ROTATION"	adjust the picture position when it is not aligned to the TV screen. Press ↑, →, ↓ or ← to adjust the picture position, then press ENTER.
"PROGRAM SETUP"	adjust each channel settings. (see **Adjusting each channel settings (PROGRAM SETUP)** on page 30).
"COLOR SYS"	change the color system. Normally, set this to "AUTO".

To return to the normal screen

Press MENU.

continued

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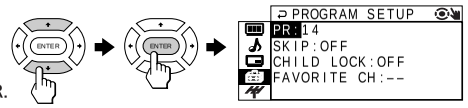
Adjusting each channel settings (PROGRAM SETUP)

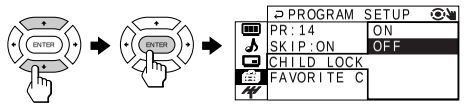
The "PROGRAM SETUP" menu allows you to change the program settings.

1 Select "PROGRAM SETUP" from the "SETUP" menu.

2 Select "PR" and press ENTER. Press ↑ or ↓ to select the desired channel you want to adjust, then press ENTER.



3 Press ↑ or ↓ to select the desired item (e.g., "CHILD LOCK"), then press ENTER.



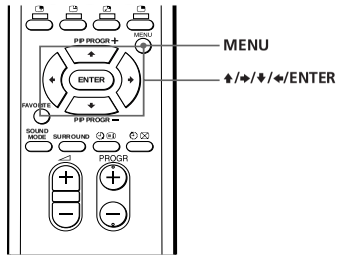
Select	To
"PR"	select the desired channel.
"SKIP"	skip unwanted or unused program number. Press ↑ or ↓ to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.
"CHILD LOCK"	prevent children from watching this selected channel. Press ↑ or ↓ to select "ON", then press ENTER. The lock symbol (🔒) appears on the screen. To cancel, select "OFF", then press ENTER. If you preset a locked channel, that channel will be unlocked automatically.
"FAVORITE CH"	program channels for direct selection. Press ↑ or ↓ to select one of the six favorite channel numbers (if you decide not to make any changes, select " ↩ "), then press ENTER. To view the selected favorite channel, refer page 13.

4 To continue adjusting other channels, press ↑ or ↓ to select "PR", then repeat step 2 and 3.

To return to the normal screen

Press MENU.

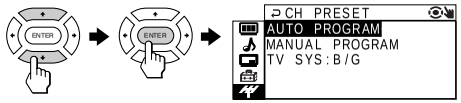
Changing the Channel Preset ("CH PRESET") setting



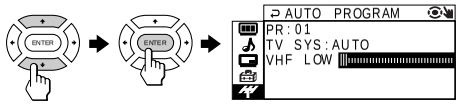
The "CH PRESET" menu allows you to adjust the setup of your TV. For example, you can receive a channel with a weak signal that fails to be tuned in by automatic presetting.

1 Press MENU.

2 Press ↑ or ↓ to select the "CH PRESET" icon ( ), then press ENTER.



3 Press ↑ or ↓ to select the desired item (e.g., "AUTO PROGRAM"), then press ENTER.



Select	To
"AUTO PROGRAM"	preset channels automatically.
"MANUAL PROGRAM"	preset channels manually. See **Presetting channels manually** on page 32.
"TV SYS"	change the TV system. Press ↑ or ↓ to select either "B/G", "I", "D/K" or "M", then press ENTER.

To return to the normal screen

Press MENU.

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 21.

continued

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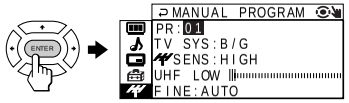
Changing the Channel Preset ("CH PRESET") setting (continued)

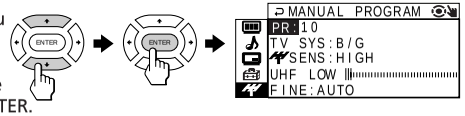
Presetting channels manually

1 After selecting "MANUAL PROGRAM", select the program number to which you want to preset a channel.

(1) Make sure "PR" is selected , then press ENTER.



(2) Press ↑ or ↓ until the program number you want to preset (e.g., program number "10") appears on the menu, then press ENTER.

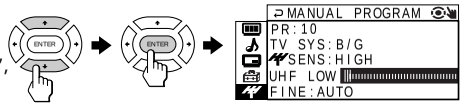


Tip

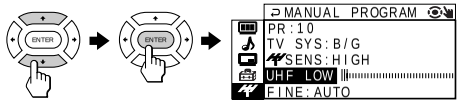
• You can also select the program number with the PROGR +/– or number buttons.

2 Select the desired channel.

(1) Press ↑ or ↓ to select either "VHF LOW", "VHF HIGH" or "UHF", then press ENTER.

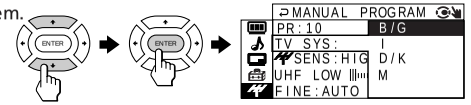


(2) Press ↑ or ↓ until the desired channel picture appears on the TV screen, then press ENTER.

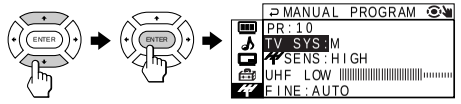


3 If the sound of the desired channel is abnormal, select the appropriate TV system.

(1) Press ↑ or ↓ to select "TV SYS", then press ENTER.

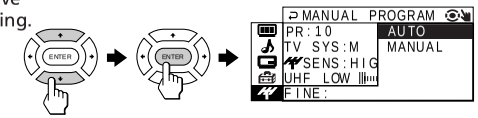


(2) Press ↑ or ↓ until the sound becomes normal (e.g., "M"), then press ENTER.

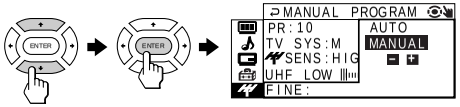


4 If you are not satisfied with the picture and sound quality, you may improve them by using fine tuning.

(1) Press ↑ or ↓ to select "FINE", then press ENTER.

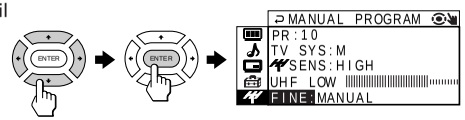


(2) Press ↑ or ↓ to select "MANUAL", then press ENTER.



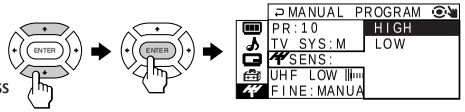
(3) Press ↑, →, ↓ or ← until the picture and sound quality are optimal, then press ENTER.

The + or – icon on the menu flashes while tuning.

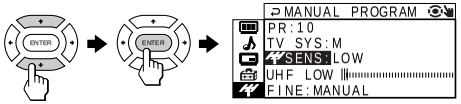


5 If the TV signal is too strong and the picture is distorted, you may reduce the TV receiving sensitivity.

(1) Press ↑ or ↓ to select "SENS", then press ENTER.



(2) Press ↑ or ↓ to select "LOW", then press ENTER.



To return to the normal screen

Press MENU.

Notes

• If you preset a locked channel ("CHILD LOCK"), that particular channel will be unlocked automatically (see page 30).

• The TV system ("TV SYS"), "SENS" and the fine tuning ("FINE") settings are memorized for each program number.

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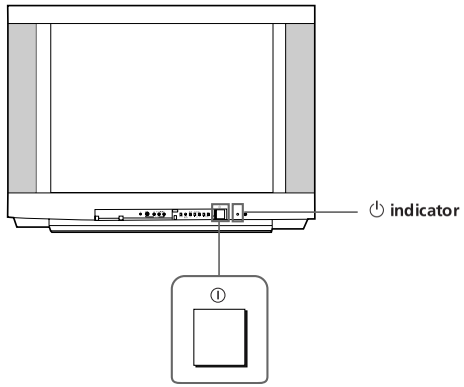
Self-diagnosis function

Your TV is equipped with a self-diagnosis function. If there is a problem with your TV, the ⏻ indicator flashes red. The number of times the ⏻ indicator flashes indicates the possible causes.

Front of TV



1 Check that the ⏻ indicator flashes red a number of times between 3-second intervals.

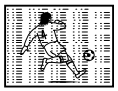
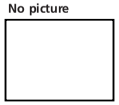
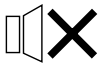
2 Count the number of times the ⏻ indicator flashes.

3 Press ⏻ (main power) to turn off your TV.

4 Inform your nearest Sony service center about the number of times the ⏻ indicator flashes.
Be sure to note the model name and serial number located on the rear of your TV.

Troubleshooting

If you find any problem while viewing your TV, please check the following guide. If any problem persists, contact your Sony dealer.

Symptom	Possible cause	Solutions	Page
Snowy picture  Noisy sound	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• Channel presetting is inappropriate or incomplete.	• Display the “CH PRESET” menu and select “MANUAL PROGRAM” to preset the channel again.	31
	• The antenna type is inappropriate.	• Check the antenna type (VHF/UHF). Contact a Sony dealer for advice.	–
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Signal transmission is low.	• Try using a booster.	–
Distorted picture Noisy sound	• Broadcast signals are too strong.	• Display the “CH PRESET” menu and select “MANUAL PROGRAM”. Then, select “ SENS: LOW”. • Turn off or disconnect the booster if it is in use.	31 –
Good picture Noisy sound	• The TV system setting or channel presetting is inappropriate or incomplete.	• If the sound of all the channels are noisy, display the “CH PRESET” menu and check the TV system (“TV SYS”) setting, then select “AUTO PROGRAM” to preset the channels again. • If the sound of some channels are noisy, select the channel, then display the “CH PRESET” menu and select the appropriate TV system (“TV SYS”).	31 31
No picture  No sound 	• The power cord, antenna or VCR is not connected.	• Check the power cord, antenna and the VCR connections.	4
	• The TV is not turned on.	• Press I/⏻ (power). • Press ⏻ (main power) on the TV to turn off the TV for about five seconds, then turn it on again.	9 9

continued

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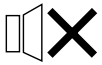
Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
Good picture No sound 	• The volume level is too low.	• Press + to increase the volume level.	10
	• The sound is muted.	• Press to cancel the muting.	10
	• Broadcast signal has a transmission problem.	• Press A/B until a good sound is heard. (KV–XA34M66/XA29M66 only)	17
Dotted lines or stripes 	• There is local interference from cars, neon signs, hair dryers, power generators, etc.	• Do not use a hair dryer or other equipment near the TV. • Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice.	– –
Double images or "ghosts" 	• Broadcast signals are reflected by nearby mountains or buildings.	• Use a highly directional antenna. • Use the fine tuning ("FINE") function.	– 33
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Use of a booster is inappropriate.	• Turn off or disconnect the booster if it is in use.	–
No color 	• The color level setting is too low.	• Display the "PICTURE" menu and select "ADJUST" of "PICTURE MODE", then adjust the "COLOR" level.	24
	• The color system setting is inappropriate.	• Display the "SETUP" menu and check the color system ("COLOR SYS") setting (usually set this to "AUTO").	29
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
Abnormal color patches 	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.	• Keep external speakers or other electrical equipment away from the TV. Do not move the TV while the TV is turned on. Press ⏻ (main power) on the TV to turn off the TV for about five minutes, then turn it on again.	–
TV cannot receive stereo broadcast signal. (KV–XA34M66/XA29M66 only)	• The stereo reception setting is inappropriate.	• Press A/B until "AUTO" appears on the screen.	17

Symptom	Possible cause	Solutions	Page
Stereo broadcast sound switches on and off or is distorted. **or** The sound switches between monaural and stereo frequently. (KV–XA34M66/XA29M66 only)	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Broadcast signal has a transmission problem.	• Press A/B until a good sound is heard.	17
"100" appears on the top of the screen and no Teletext display. (KV-XA34M66/XA29M66 only)	• The channel carries no Teletext broadcast.	—	19
Teletext display is incomplete (picture snowy or double images). (KV-XA34M66/XA29M66 only)	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Signal transmission is too low.	• Try using a booster.	–
Picture slant 	• The terrestrial magnetism affects your TV set.	• Display the "SETUP" menu and adjust "PIC ROTATION" so that the picture is aligned to the TV screen.	29
Lines moving across the TV screen.	• There is interference from external sources, e.g., heavy machineries, nearby broadcast station.	• Use the fine tuning ("FINE") function.	33
The ⏻ indicator on your TV flashes red a number of times between 3-second intervals.	• Your TV may need service.	• Contact your nearest Sony service center.	34
TV cabinet creaks.	• Changes in room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.	—	–
A "boom" sound is heard when the TV is turned on.	• The TV's demagnetizing function is working. This does not indicate a malfunction.	—	–

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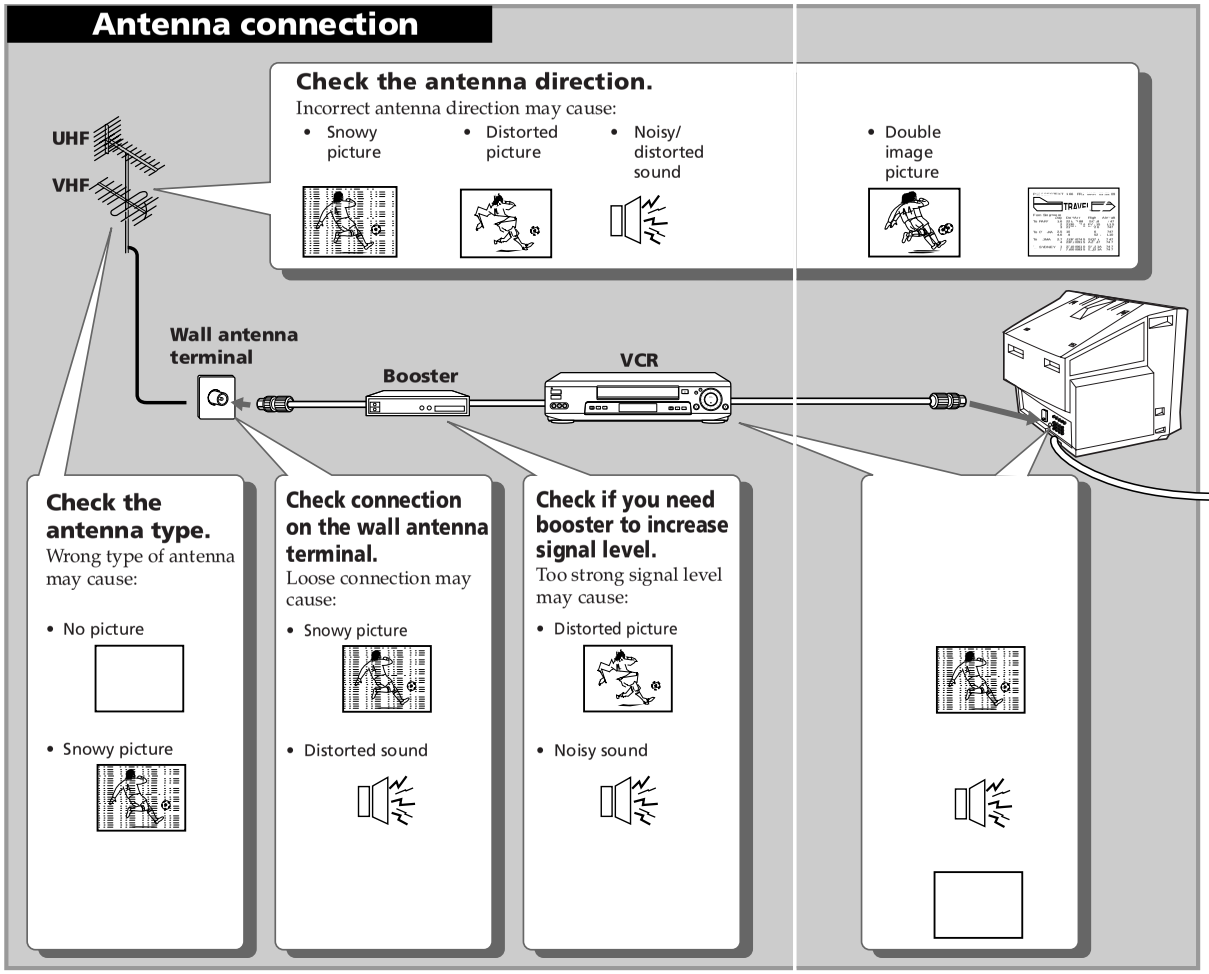
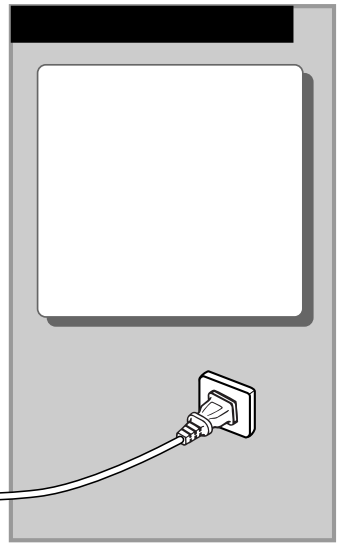
Troubleshooting Shortcuts

For better viewing, please check the following connections.





For more information, please see **Troubleshooting** on page 35 or consult your dealer for guidance.

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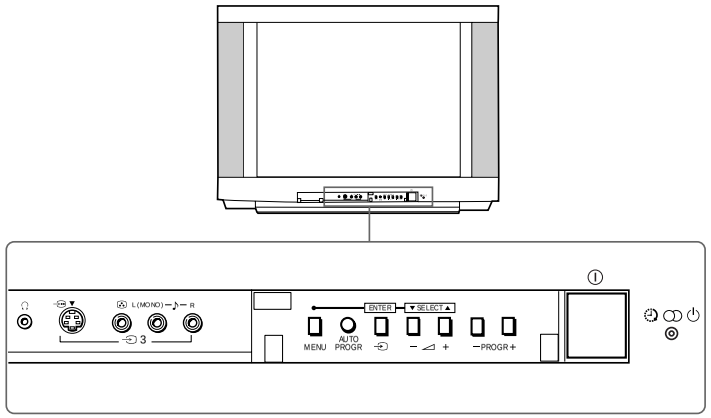
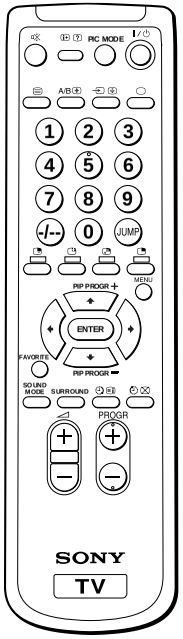
Overview of controls

TV front panel



Button	Function	Page
AUTO PROGR	Preset channels automatically.	5
⏻	Turn off completely or turn on the TV.	9
PROGR +/–	Select program number.	9
⏻	Standby indicator.	9
+/–	Adjust volume.	10
	Select TV or video input.	10
	Wake Up indicator.	11
	Stereo/Bilingual indicator. (KV-XA34M66/XA29M66 only)	17
MENU	Display the menu.	23
	Headphones jack.	–

Remote control



The names/symbols of buttons on the remote are indicated in different colors to represent the available functions.

Label color	Button function
White	For general TV operations
Green	For Teletext operations
Yellow	For PIP operations

Button	Function	Page
I/⏻	Turn off temporarily or turn on the TV.	9
PROGR +/–	Select program number.	9
0 – 9, -/--	Input numbers.	9
+/–	Adjust volume.	10
	Select TV or video input.	10
	Display the TV program.	10
	Mute the sound.	10
	Display on-screen information.	10
JUMP	Jump to previous channel.	10
Timer operations		
	Set TV to turn on automatically.	11
	Set TV to turn off automatically.	11
PIC MODE	Select picture mode.	12
SOUND MODE	Select sound mode.	12
FAVORITE	Display favorite channels.	13
PIP operations		
	Display a sub screen.	14
	Swap main and sub screens.	15
	Freeze the sub screen.	15
	Select video input for the sub screen.	15
/(PIP PROGR +/–)	Change programs in the sub screen.	15
SURROUND	Select surround mode.	16
Stereo/bilingual operations (KV-XA34M66/XA29M66 only)		
A/B	Select stereo/bilingual mode.	17
Teletext operations (KV-XA34M66/XA29M66 only)		
	Display Teletext broadcast.	19
	Enlarge the Teletext display.	20
	Reveal concealed information.	20
	Stop Teletext display from scrolling.	20
	Display Teletext service contents.	20
	Show TV screen while waiting for Teletext page.	20
(red, green, yellow, blue)	Access a FASTEXT menu.	20
Menu operations		
MENU	Display the menu.	23
/ENTER	Select, adjust and confirm selected item.	23

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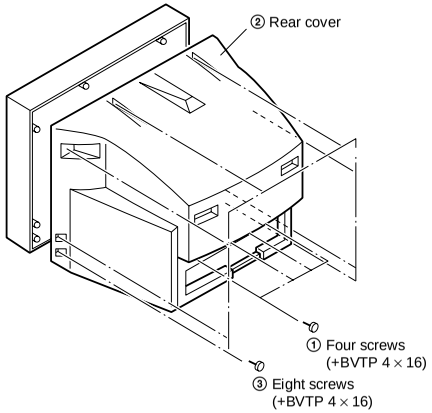
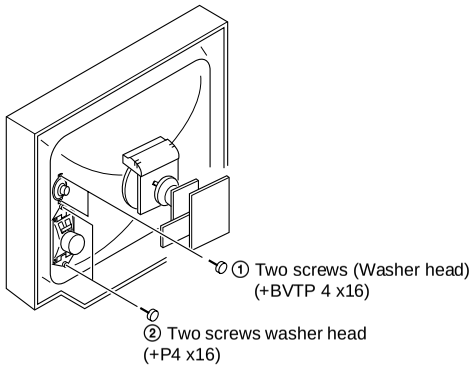
SECTION 2
DISASSEMBLY

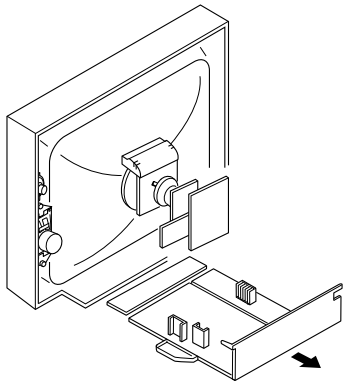
2-1. REAR COVER REMOVAL



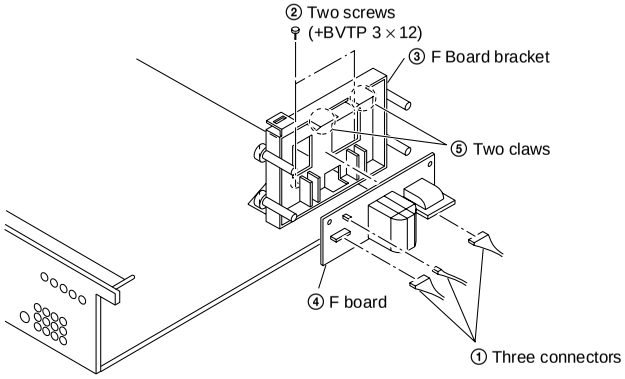
2-2. SPEAKER REMOVAL



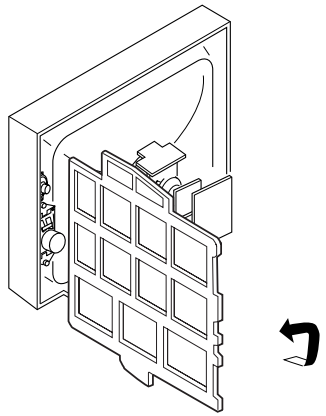
2-3. CHASSIS ASSY REMOVAL



2-4. F BRACKET REMOVAL



2-5. SERVICE POSITION



Note:

1. Disconnect the speaker connection on the right side.
2. Undress necessary wires that creates tension while placing the chassis into Service Position.

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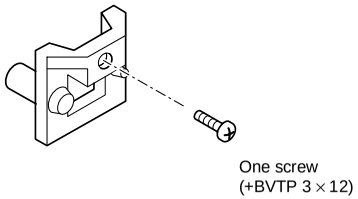
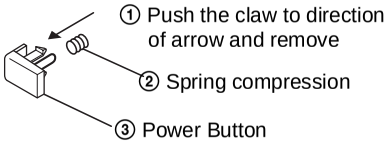
2-6. REPLACEMENT OF PARTS

For replacement of light guide,unscrew them, exchange with new parts and fix them with screws respectively.

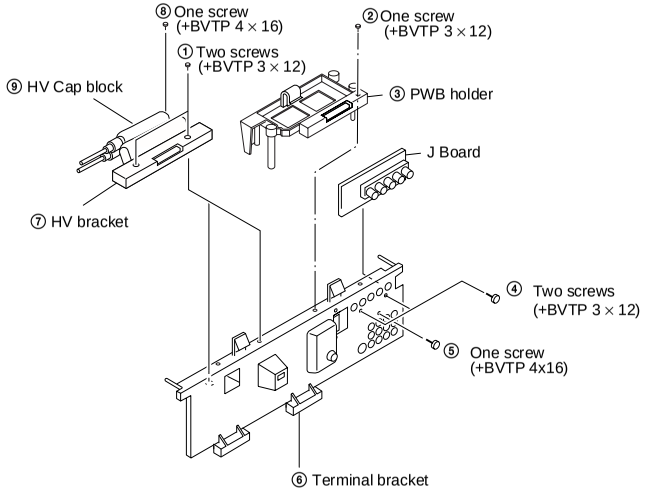
2-6-1. Light Guide



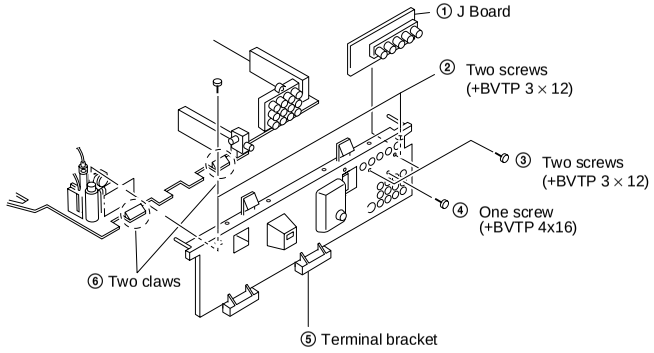
2-6-2. Power Button



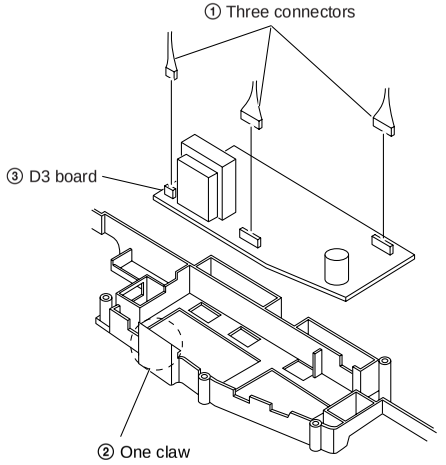
2-7. HV CAP BLOCK, PWB HOLDER AND J BOARD REMOVAL


⑧ One screw (+BVTP 4 × 16)
② One screw (+BVTP 3 × 12)
① Two screws (+BVTP 3 × 12)
⑨ HV Cap block
③ PWB holder
J Board
⑦ HV bracket
④ Two screws (+BVTP 3 × 12)
⑤ One screw (+BVTP 4x16)
⑥ Terminal bracket

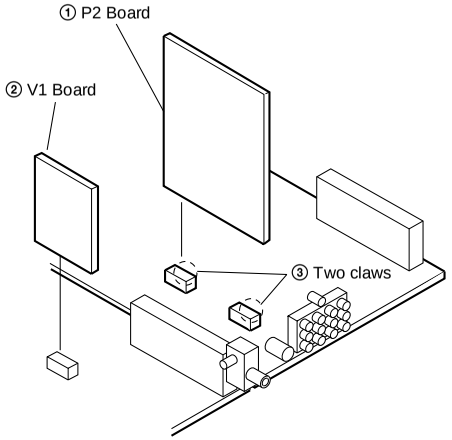
2-8. TERMINAL BRACKET REMOVAL



2-9. D3 BOARD REMOVAL



2-10. P2 AND V1 BOARDS REMOVAL



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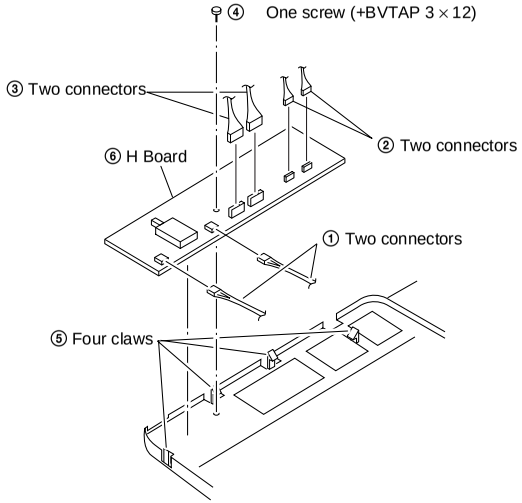
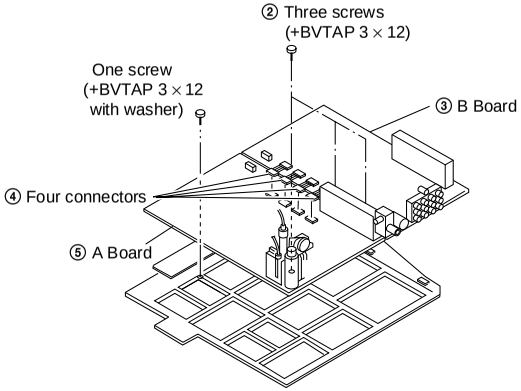
2-11. H BOARD REMOVAL

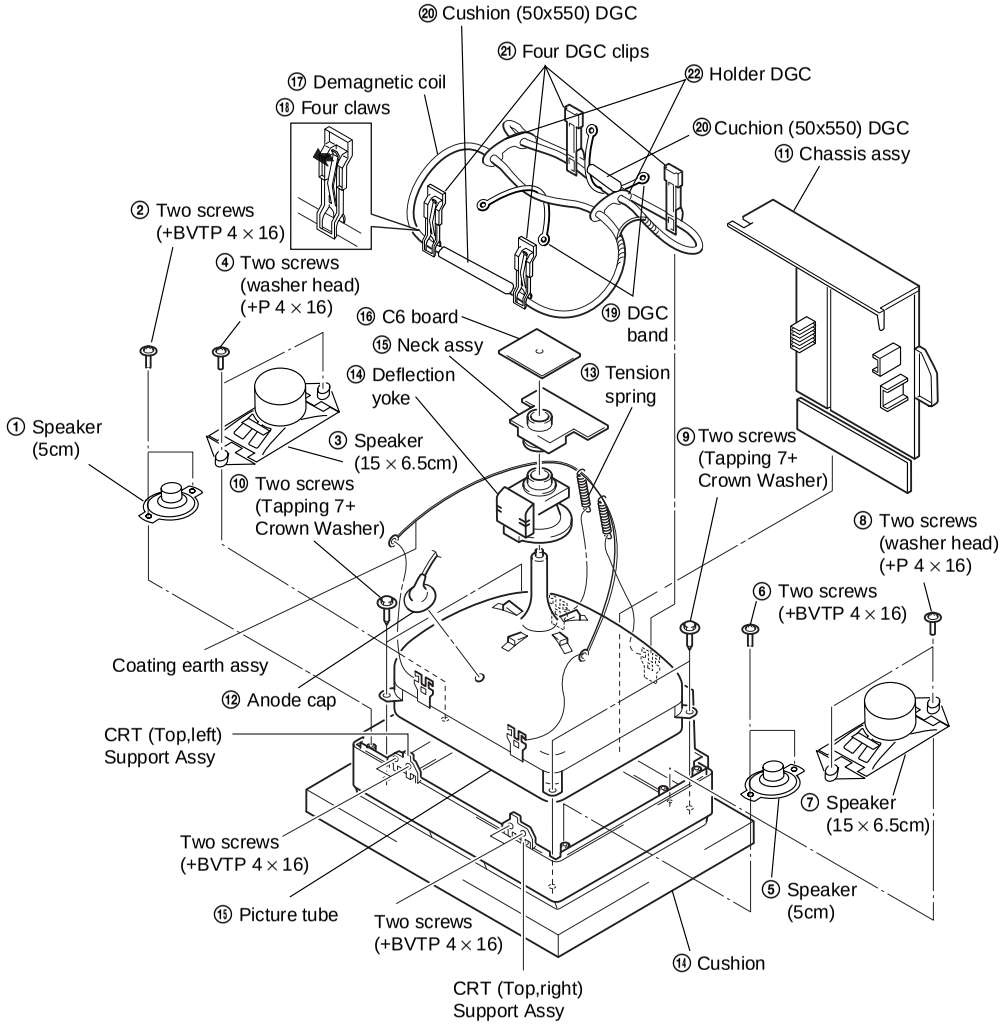


2-12. A AND B BOARDS REMOVAL



2-13. PICTURE TUBE REMOVAL

Note:
Please remove necessary CRT support located on top left, top right, prior to removing the CRT.



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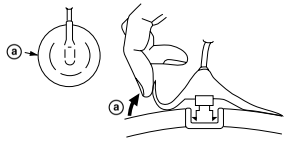
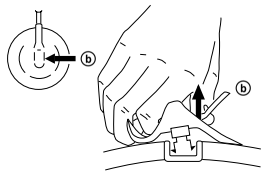
• REMOVAL OF ANODE-CAP

NOTE : After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

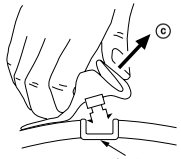
• REMOVING PROCEDURES



① **Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.**



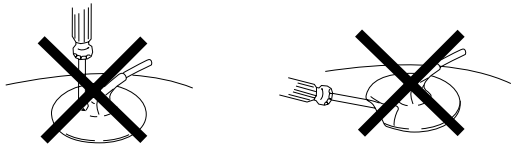
② **Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.**



③ **When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ.**

• HOW TO HANDLE AN ANODE-CAP

① **Do not damage the surface of anode-caps with sharp shaped objects.**
② **Do not press the rubber too hard so as not to damage the inside of anode-cap. A metal fitting called the shatter-hook terminal is built into the rubber.**
③ **Do not turn the foot of rubber over too hard. The shatter-hook terminal will stick out or damage the rubber.**



SECTION 3
ADVANCE OPERATION

3-1. "RESET" FUNCTION

1. Purpose

If a customer faces some setting problem that cannot be solved, using the "RESET" function some items will be reset to its original setting (shipment condition)

2. How to Operate

The way to access to the "RESET" Function:-

a) By pressing "MENU" button or "SELECT" button (for non-menu models) on the Front Key Input and hold it down for 5 seconds.

3. Subsequent of Operation

Sequential to the resetting operation (either methods being used in No. 2), TV set would shut down once and automatically turn on again. The power-off duration is expected to be about 500msec. An OSD message, "RESET" tentatively will be displayed for 10 sec after IK status gets stable.
As a result, some items will be reset to an initial condition (shipment condition) wheareas some other remains at the last selection by user.

Items that remains at the last selection by user

Program No., Favourite CH Setup, PIC rotation, OSD Language, Fine tuning, TV System, Skip

Reset Items

Video input	RF	Color system(RF)	AUTO*
Volume	30	Antenna sensitivity	HIGH*
Picture mode	DYNAMIC	Stereo mode	STEREO/NICAM*
Sound mode	DYNAMIC	Bilingual mode	MAIN*
Surround mode	OF	High-deviation mode	AUTO*
Color system(video)	AUTO	Child lock	OFF*
Multi picture(PIP)	OFF	Wide mode	OFF
PIP position	Bottom-right	Game mode	OFF
Favourite CH mode	AUTO	Teletext mode	OFF
OSD recall	OFF	Sleep timer	OFF
Intelligent volume	OFF	Wake-up timer	OFF
ECO mode	OFF	Sound muting	OFF

*= only when in RF mode

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SECTION 4
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows unless otherwise noted:
PICTURE control ..... normal
BRIGHTNESS control ..... normal

Perform the adjustments in the following order :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Pattern Generator
2. Degausser
3. Oscilloscope

Preparation :

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

4-1. BEAM LANDING

1. Input a white signal with the pattern generator.
   Contrast, Brightness } normal
2. Position neck assy as shown in Fig4-2.
3. Set the pattern generator raster signal to a green raster.
4. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side. (See Figures 4-1 through 4-4.)
5. Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 4-2.)
6. Switch the raster signal to blue, then to red and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws and DY spacers.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Figure 4-5.)

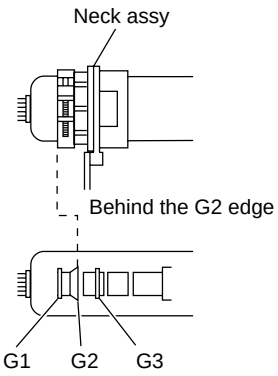

Fig. 4-1

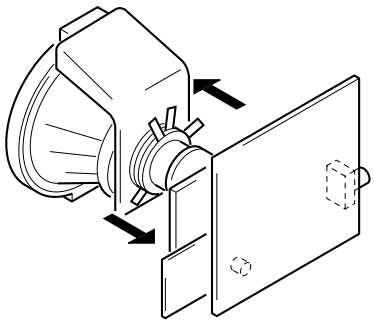

Fig. 4-2

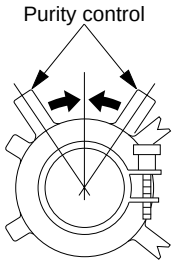

Fig. 4-3

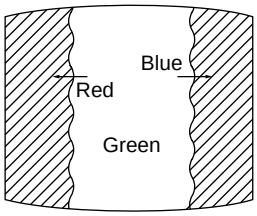

Fig. 4-4

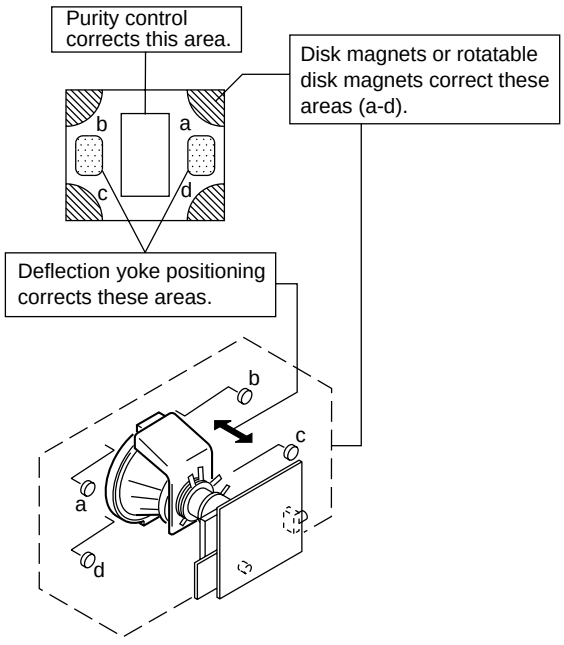

Fig. 4-5

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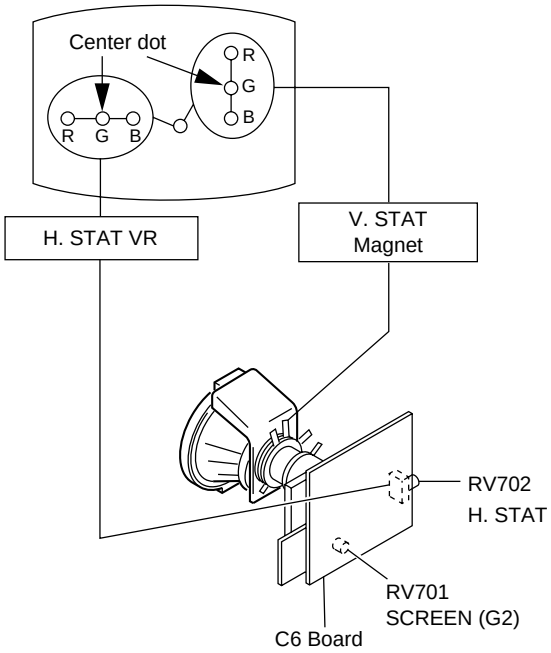
4-2. CONVERGENCE

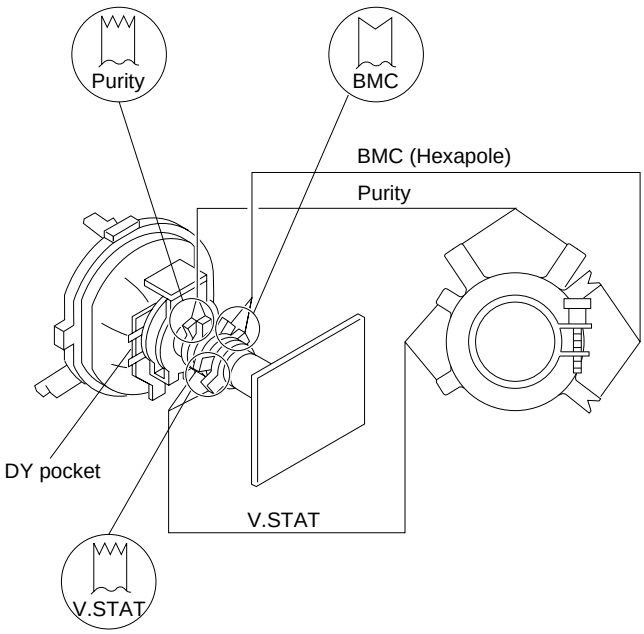
Preparation :

- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Receive dot/hatch signal.
- Pic mode: Personal (Pic 90%, Brightness 50%, Col 50 %, Hue 50%, Shp 50%).

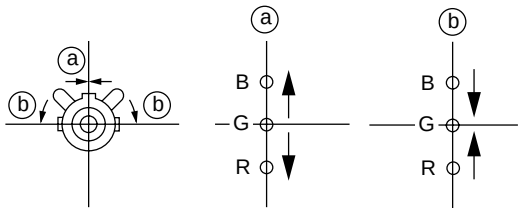
(1) Horizontal and Vertical Static Convergence



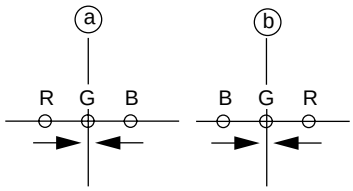
1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue dots are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue dots are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green and blue dots together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other, so be sure to perform adjustments while tracking.)



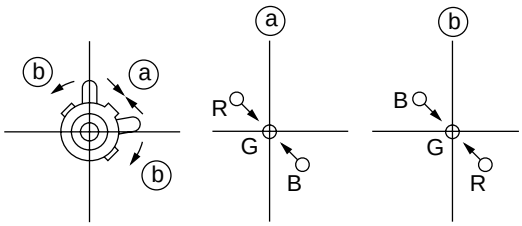
① V. STAT



② H. STAT VR



③



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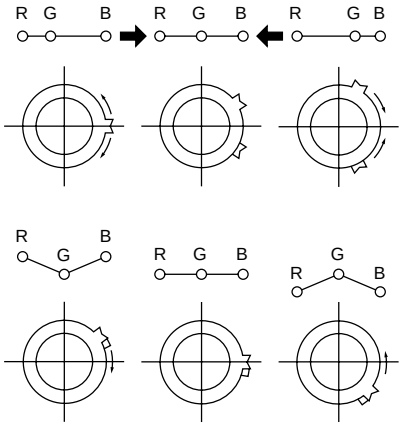
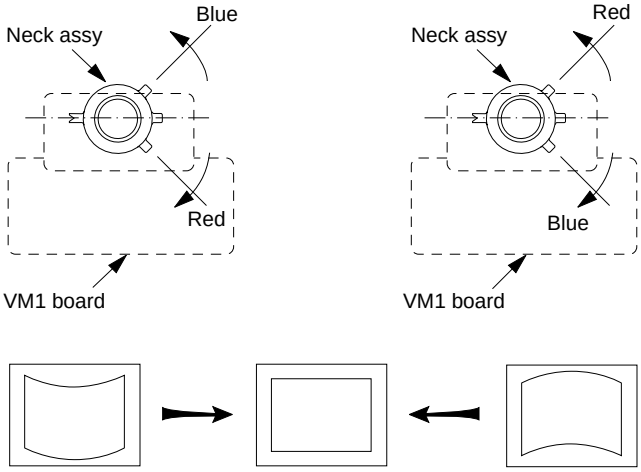
④ BMC (Hexapole) Magnet.
If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.





Note

1. The Red and Blue magnets should be equally far from the horizontal center line.
2. Do not separate the Red and Blue magnets too far. (Less than 8 mm)

⑤ Y separation axis correction magnet adjustment.

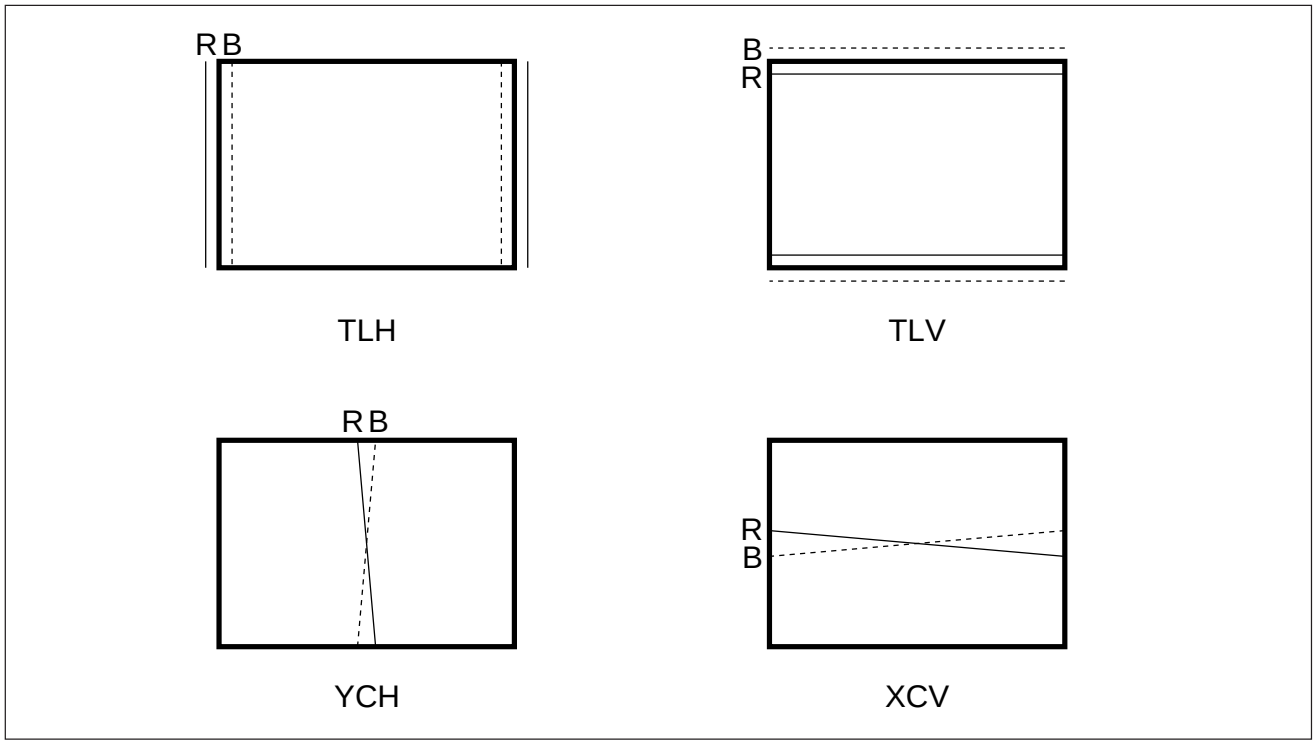
1. Receive the cross-hatch signal and adjust [PICTURE] to [MIN] and [BRIGHTNESS] to [STANDARD] .

2. Adjust the Y separation axis correction magnet on the neck assembly so that the horizontal lines at the top and bottom of the screen are straight.

(2) Dynamic Convergence Adjustment

Preparation:

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence



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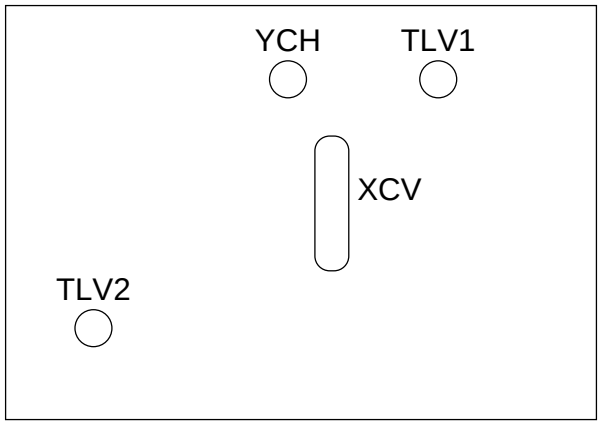
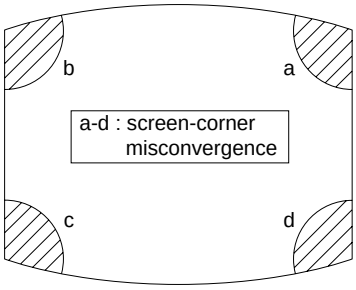
TLV	Rotate	TLV-2	VOL (29”, 34”) on DY
	Rotate	TLV	VOL (25”) on DY
XCV	Rotate	XCV	Adj core on DY
YCH	Rotate	YCH	VOL on DY
TLH	Insert	TLH	Correction Plate to DY Pocket (Left or Right)

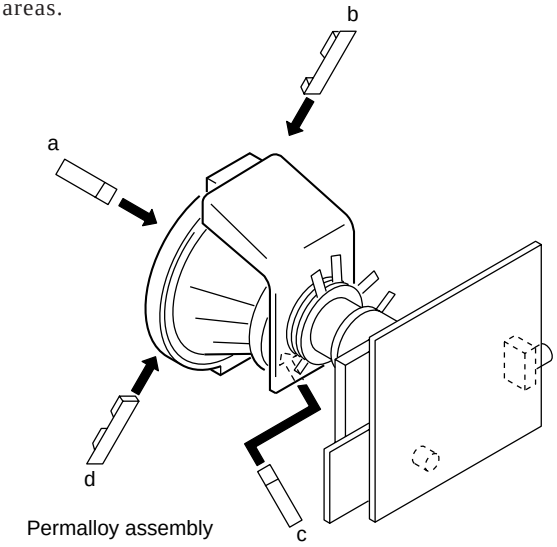
ON DY:



(3) Screen-corner Convergence



Fix a Permalloy assy corresponding to the misconverged areas.



4-3. FOCUS ADJUSTMENT

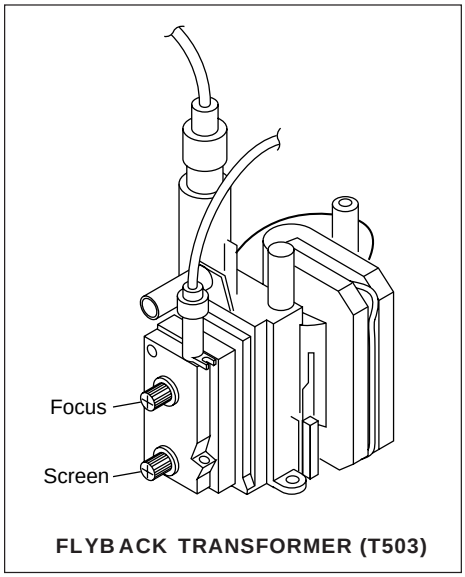
FOCUS adjustment should be completed before W/B adjustment.

(Except 34")

1. Receive digital monoscope pattern.
2. Set "Picture Mode" to "DYNAMIC".
3. (a) Adjust figure VR so that the center of screen becomes just focus (except 25").
   (b) Adjust focus VR so that the lion teeth becomes just focus (25" only).
4. Change the receiving signal to white pattern and blue back.
5. Confirm magenta ring is not over the limit sample.
   Incase magenta fing is over the limit sample, adjust focus VR to take balance of magenta ring and focus.

(For 34")

1. Receive digital monoscope pattern.
2. Set "Picture Mode" to "Standard".
3. Set S2801 to mechanical center position.
4. Adjust focus VR so that the center of the screen becomes just focus.
5. Adjust S2801 when corner focus is unbalance is right and left.
6. Change the receiving signal to white pattern blue back.
7. Confirm Magenta ring is not over the limit sample.
   Incase magneta ring is over limit sample, reset S2801 to mechanical center posotion and then adjust FOCUS VR to take balance of MAGENTA RING and FOCUS.



FLYBACK TRANSFORMER (T503)

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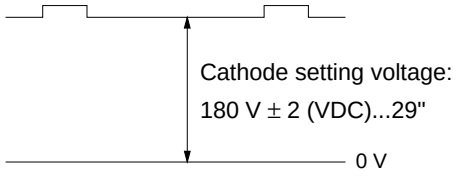
4-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

1. G2 (SCREEN) ADJUSTMENT

1) Set the PICTURE to normal.
2) Put to VIDEO input mode without signals.
3) Connect R, G and B of the C6 board cathode to the oscilloscope.
4) Adjust BRIGHTNESS to obtain the cathode voltage to the value below.
5) Adjust G2 (screen) on the FBT until picture shows the point before cut off.

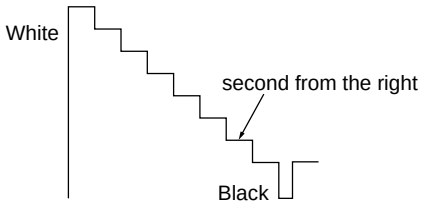


2. WHITE BALANCE ADJUSTMENT

1) Set to Service Mode (Refer Section 5-1: ADJUSTMENTS WITH COMMANDER).
2) Input white raster signal.
3) Set the PICTURE to minimum.
4) Select GCT (WHB 4) and BCT (WHB 5) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
5) Set the PICTURE to maximum.
6) Select GDR (WHB 1) and BDR (WHB 2) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
7) Write into the memory by pressing [MUTING] then [0].

3. SUB BRIGHT ADJUSTMENT

1) Set to service mode.
2) Input a staircase signal of black to white from the pattern generator.
3) BRIGHTNESS .... 50%.
   PICTURE ..... MINIMUM
4) Select SBR (WHB7) with [1] and [4], and adjust SBR (WHB7) level with [3] and [6] so that the second stripe from the right is dimly lit.



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SECTION 5
CIRCUIT ADJUSTMENTS

5-1. ADJUSTMENTS WITH COMMANDER

Service adjustments to this model can be performed using the supplied Remote Commander RM-953

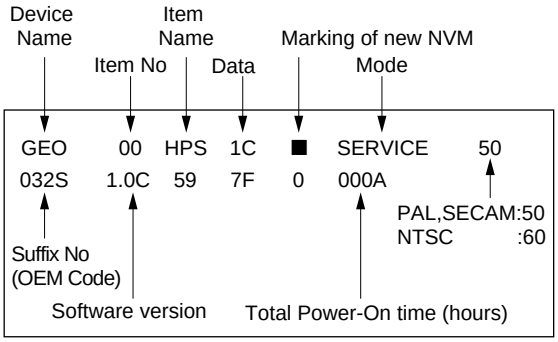
a. ENTERING SERVICE MODE

With the unit on standby

→ DISPLAY → 5 → VOL (+) → POWER

This operation sequence puts the unit into service mode.

The screen display is :



b. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press POWER button on the commander), then press POWER button again, hereupon it becomes TV mode.

c. METHOD OF WRITE INTO MEMORY

1) Set to Service Mode.
2) Press 1 (UP) and 4 (DOWN), to select the adjustment.
4) Press MUTING button to indicate WRITE on the screen.
5) Press 0 button to write into memory.

d. MEMORY WRITE CONFIRMATION METHOD

1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
2) Turn the power switch ON and set to Service Mode.
3) Call the adjusted items again to confirm adjustments were made.

1, 4 ↓	Select the adjustment item.
3, 6 ↓	Raise/lower the data value.
MUTING ↓	Writes.
0	Executes the writing.

7, 0	All the data becomes the values in memory.
8, 0	All user control goes to the standard state.
5, 0	Service data initialization (Be sure not to use usually.)
2, 0	Write 50Hz adjustment data to 60Hz, or vice versa.

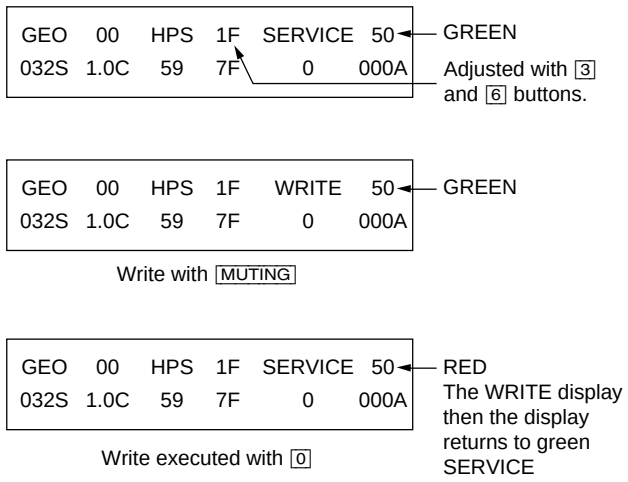
5-2. ADJUSTMENT METHOD

Item Number 00 of device GEO

This explanation uses H-Position as an example.

1. Select “GEO 00 HPS” with the 1 and 4 buttons.
2. Raise/lower the data with the 3 and 6 buttons.
3. Select the optimum state. (The standard is 1F for PAL reception.)
4. Write with the MUTING button. (The display changes to WRITE.)
5. Execute the writing with the 0 button. (The WRITE display will be changed to red color while excuting, and back to SERVICE.)

Example on screen display :-


GEO 00 HPS 1F SERVICE 50
032S 1.0C 59 7F 0 000A
GREEN
Adjusted with 3 and 6 buttons.
GEO 00 HPS 1F WRITE 50
032S 1.0C 59 7F 0 000A
GREEN
Write with MUTING
GEO 00 HPS 1F SERVICE 50
032S 1.0C 59 7F 0 000A
RED
The WRITE display then the display returns to green SERVICE
Write executed with 0

Use the same method for all Items. Use 1 and 4 to select the adjustment item, use 3 and 6 to adjust, write with MUTING, then execute the write with 0.

Note : 1. In WRITE, the data for all items are written into memory together.
2. For adjustment items that have different standard data between 50Hz or 60Hz, be sure to use the respective input signal after adjustment.

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Adjustment Item Table

8 TVG	Functionality		Range	Function	Table & Note	Register No.bit	Slava Address	RAM Address (bit)	NVM			Remarks:
Category	No.	Name							Slave	Sub	Bit Range	Initial data for tables
GEO	00	HPS	3F	H Position	Normal(50/60)/Wide(50/60)	14 (7-2)	CXA2159S(88H)	9E (7-2)	A0/A4	(A1/AE)/(44/4F)	7-2	1E (for 50Hz)/16(for 60Hz)
	01	HSZ	3F	H Size	Normal(50/60)/Wide(50/60)	13 (7-2)		9D (7-2)	A0/A4	(A0/AD)/(43/4E)	7-2	1F
	02	PAP	3F	Pin Amp	Normal(50/60)/Wide(50/60)	15 (7-2)		9F (7-2)	A0/A4	(A2/AF)/(45/50)	7-2	1F
	03	TLT	0F	Trapezium	Normal(50/60)/Wide(50/60)	17 (7-4)		A1 (7-4)	A0/A4	(A4/B1)/(47/52)	7-4	7
	04	VPS	3F	V Position	Normal(50/60)/Wide(50/60)	11 (7-2)		9B (7-2)	A0/A4	(9E/AB)/(41/4C)	7-2	1F
	05	VSZ	3F	V size	Normal(50/60)/Wide(50/60)	10 (7-2)		9A (7-2)	A0/A4	(9D/AA)/(40/4B)	7-2	1F
	06	SCO	0F	S Correction	Normal(50/60)/Wide(50/60)	12 (7-4)		9C (7-4)	A0/A4	(9F/AC)/(42/4D)	7-4	7
	07	VLN	0F	V Linearity	Normal(50/60)/Wide(50/60)	12 (3-0)		9C (3-0)	A0/A4	(9F/AC)/(42/4D)	3-0	7
	08	BOW	0F	AFC Bow	Normal(50/60)/Wide(50/60)	18 (7-4)		A2 (7-4)	A0/A4	(A5/B2)/(48/53)	7-4	7
	09	AGL	0F	AFC Angle	Normal(50/60)/Wide(50/60)	18 (3-0)		A2 (3-0)	A0/A4	(A5/B2)/(48/53)	3-0	7
	0A	UPN	3F	Upper Pin	Normal(50/60)/Wide(50/60)	16 (7-2)		A0 (7-2)	A0/A4	(A3/B0)/(46/51)	7-2	1F
	0B	LPN	3F	Lower Pin	Normal(50/60)/Wide(50/60)	1A (7-2)		A4 (7-2)	A0/A4	(A7/B4)/(4A/55)	7-2	1F
	0C	HBL	1	H Blanking on/off		1A (1)		74 (1)	A0	9A	1	1
	0D	LBL	0F	Left H Blanking	Normal(50/60)/Wide(50/60)	19 (7-4)		A3 (7-4)	A0/A4	(A6/B3)/(49/54)	7-4	0B(for 50Hz)/0F(for 60Hz)
	0E	RBL	0F	Right H Blanking	Normal(50/60)/Wide(50/60)	19 (3-0)		A3 (3-0)	A0/A4	(A6/B3)/(49/54)	3-0	2
WHB	00	RDR	3F	R Drive	DYNAMIC/others	0B (7-2)	CXA2159S(88H)	37E (7-2)	A0	C0/BA	7-2	25 (DYNAMIC)/ 2A (for OTHERS)
	01	GDR	3F	G Drive	DYNAMIC/others	0C (7-2)		37F (7-2)	A0	C1/BB	7-2	1F
	02	BDR	3F	B Drive	DYNAMIC/others	0D (7-2)		380 (7-2)	A0	C2/BC	7-2	1F
	03	RCT	0F	R Cutoff	SECAM/others	09 (3-0)		382 (3-0)	A0	C3/BD	3-0	7
	04	GCT	0F	G Cutoff	SECAM/others	0A (7-4)		383 (7-4)	A0	C4/BE	7-4	7
	05	BCT	0F	B Cutoff	SECAM/others	0A (3-0)		383 (3-0)	A0	C4/BE	3-0	7
	06	BMN	1F	Brightness Minimum Data		08 (7-2)		106 (6-2)	A0	22	6-2	15
	07	SBR	3F	Sub Brightness Control		08 (7-2)		107 (7-2)	A0	23	7-2	1F
	08	APB	3	Sub Bright Control Switch for Intelligent Picture #3		08 (7-2)		107 (7-2)	A0	23	1-0	3
SAJ	00	PMX	3F	Picture Maximum Data	non-Wide/Wide	05 (7-2)	CXA2159S(88H)	105 (7-2)	A0	21/20	7-2	38(NON-WIDE) / 33 (WIDE)
	01	SHU	0F	Sub Hue Control	TV/Video	07 (7-2)		108 (5-2)	A0	24/38	5-2	8
	02	SSH	0F	Sub Sharpness Control	TV/Video	09 (7-4)		109 (7-4)	A0	25/36	7-4	04 (for TV) / 09 (FOR VIDEO)
	03	SCL	3F	Sub Color Control	(NTSC/others)/WIDE(NTSC/others)	06 (7-2)		10A (7-2)	A0	(37/26)(3C/3B)	7-2	1F
VP	00	EHT	0F	EHT Comp	50/60Hz	17 (3-0)	CXA2159S(88H)	A1 (3-0)	A0[/A4]	A4/B1[/(47/52)]	3-0	5
	01	GMA	3	Gamma Correction (sepatated in STANDARD mode)	NON-STD.(NTSC/Others)/STD.(NTSC/Others)	0D (1-0)		367 (1-0)	A4	68/67/6A/69	1-0	02(NON-STANDARD)/01 (STANDARD)
	02	APG	1	Gamma Control Switch for Intelligent Picture #3	NON-STD.(NTSC/Others)/STD.(NTSC/Others)	0D (1-0)		367 (2)	A4	68/67/6A/69	2	0
	03	YDL	0F	Y Delay	PAL/SECAM/NTSC/DVD	0E (3-0)		36C (3-0)	A4	3C/3E/3D/3F	3-0	(06/09/08/08 for PAL/SECAM/NTSC/DVD)
	04	SST	3	SECAM ID Start Position	SECAM&AUTO/FORSED-PAL&NTSC	03 (5-4)		369 (5-4)	A4	6B/6D	5-4	01(for SECAM/AUTO)/01(for forced PAL/NTSC)
	05	SSP	3	SECAM ID Stop Position	SECAM&AUTO/FORSED-PAL&NTSC	03 (7-6)		369 (7-6)	A4	6B/6D	7-6	01(for SECAM/AUTO)/01(for forced PAL/NTSC)
	06	RLM	3	RGB Limit		03 (1-0)		5D (1-0)	A0	83	1-0	0
	07	SLV	03	SECAM ID Level	SECAM&AUTO/FORSED-PAL&NTSC	04 (1-0)		36A (1-0)	A4	6C/6E	1-0	02(for SECAM/AUTO)/02(for forced PAL/NTSC)
	08	SBF	3F	SECAM BELL f0	SECAM&AUTO/FORSED-PAL&NTSC	04 (7-2)		36A (7-2)	A4	6C/6E	7-2	22(for SECAM/AUTO)/22(for forced PAL/NTSC)
	09	DYC	1	Dynamic Color on/off		0C (1)		66 (1)	A0	8C	1	1
	0A	ABL	1	ABL Mode Switching (except STANDARD mode)	except STANDARD	0B (1)		65 (1)	A0	8B	1	(00 for STANDARD)/01(OTHERS)
	0B	VTH	1	ABL Detection Vth Switching		0B (0)		5	A0	8B	0	1
	0C	SFO	1	FO Switching for Sharpness	NTSC/others	07 (1)		35A (1)	A4	5C/59	1	1
	0D	DCX	1	DC Trans. Ratio Switching		08 (1)		62 (1)	A0	88	1	1

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Adjustment Item Table

TVG	Functionality		Initial	Range	Function	Table & Note	Register No.bit	Slava Address	RAM Address (bit)	NVM			Remarks:
Category	No.	Name								Slave	Sub	Bit Range	Initial data for tables
VP	0E	SHT	1	1	Pre-/Overshoot ratio Switch	NTSC/others	08 (0)	CXA2159S(88H)	35B (0)	A4	5D/59	0	1
	0F	HDW	0	1	H Drive Pulse Width Switch		00 (6)		5A (6)	A0	80	6	0
	10	AFC	1	03	AFC Gain Control	TV/Video/Text	11 (1-0)		A7 (1-0)	A0	28/29/2A	1-0	01/00/01 (for TV/VIDEO/TEXT)
	11	HOS	7	0F	H Oscillation		0E (7-4)		68 (7-4)	A0	8E	7-4	7
	12	HSS	0	1	Slice Level of H Sync Sep.		0F (1)		69 (1)	A0	8F	1	0
	13	VSS	0	1	Slice Level of V Sync Sep.		0F (0)		69 (0)	A0	8F	0	0
	14	HMS	1	1	Macro Vision C/m off/on	50/60Hz	10 (0)		9A (0)	A0	9D/AA[/(40/4B)]	0	1
	15	YUV	0	1	Y SEL		00 (2)		5A (2)	A0	80	2	0
	16	CDV	1	3	CD mode for Video and RF under no signal	Video only	0F (5-4)		365 (5-4)	A0	2B	5-4	1
	17	RON	1	1	R ON	not memorized	01 (2)		5B (2)	A0	81	2	1
	18	GON	1	1	G ON	not memorized	01 (1)		5B (1)	A0	81	1	1
	19	BON	1	1	B ON	not memorized	01 (0)		5B (0)	A0	81	0	1
	1A	PON	1	1	P ON	not memorized	00 (7)		5A (7)	A0	80	7	1
	1B	AXN	1	1	AXIS SW	NTSC/others (only for DYNAMIC)	07 (0)		10A (0)	A0	37/26[/(3C/3B)]	0	1
	1C	RSL	0	1	RGB SEL		0C (0)		66 (0)	A0	8C	0	0
	1D	VBW	0	3	VBLKW		16 (1-0)		70 (1-0)	A0	96	1-0	0
	1E	RFP	0	1	REFP		14 (0)		6E (0)	A0	94	0	0
	1F	VMC	0	3	VM Level		03 (3-2)		6D (3-2)	A0	83	3-2	0
AP	00	AGC	0	1	AGC On/off Control		05 (7)	BH3868FS(80H)	17A (7)	A6	05	7	0
	01	SON	0	1	Surround On/off		05 (6)		17A (6)	A6	05	6	0
	02	SST	0	1	Surround Stereo		05 (5)		17A (5)	A6	05	5	0
	03	SMO	0	1	Surround Monoral		05 (4)		17A (4)	A6	05	4	0
	04	LOP	0	1	Surround Effect Enhancer		05 (3)		17A (3)	A6	05	3	0
	05	SUR	0	7	Surround Effect		05 (2-0)		17A (2-0)	A6	05	2-0	0
	06	BAS	12	1F	Bass Sound Mode Control	dyna/drama/soft	03 (6-0)		370 (6-0)	A6	06/09/0C	4-0	12/10/10 (for DYNAMIC/DRAMA/SOFT)
	07	TRE	13	1F	Treble Sound Mode Control	dyna/drama/soft	04 (6-0)		371 (6-0)	A6	07/0A/0D	4-0	12/10/10 (for DYNAMIC/DRAMA/SOFT)
	08	TRF	0	3	Treble data offset		04 (6-0)		38C (1-0)	A6	11	1-0	2
	09	BBE	99	FF	BBE Sound Mode Control	dyna/drama/soft	02 (7-0)		372 (7-0)	A6	08/0B/0E	7-0	99/D5/00 (for DYNAMIC/DRAMA/SOFT)
MSP	00	WST	15	FF	W/G Stereo Threshold			MSP3415D(84H)	165	A0	60	7-0	15
	01	WBT	EC	FF	W/G Bilingual Threshold				166	A0	61	7-0	EC
	02	WLL	5	FF	W/G Monaural Threshold				167	A0	62	7-0	5
	03	WAC	1	0F	W/G Agreement Count				168 (3-0)	A0	63	3-0	1
	04	WDL	30	FF	W/G Search Delay				169	A0	64	7-0	30
	05	NDL	20	FF	NICAM Search Delay				16A	A0	65	7-0	20
	06	SDL	10	FF	Stereo Status Read Delay				16B	A0	66	7-0	10
	07	AGC	1	1	AGC Switch Auto/Constant		00BB (7)		116 (7)	A0	68	7	1
	08	REL	28	3F	AGC Gain at Constant Mode		00BB (6-1)		116 (6-1)	A0	68	6-1	28
	09	CRM	0	1	Carrier muting on/off		00BB (9)		115 (9)	A0	67	1	0
	0A	ACO	1	1	Audio Clock out on/off		0083 (5)		11A (5)	A0	69	5	1

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Adjustment Item Table

TVG	Functionality		Initial	Range	Function	Table & Note	Register No.bit	Slava Address	RAM Address (bit)	NVM			Remarks:
Category	No.	Name								Slave	Sub	Bit Range	Initial data for tables
MSP	0B	FP	1B	7F	FM Prescale for non-M system		000E (14-8)	MSP3415D(84H)	32F	A0	6A	6-0	1B
	0C	FPM	32	7F	FM Prescale for M system		000E (14-8)		330	A0	6B	6-0	32
	0D	FH	36	7F	FM Prescale for HDEV		000E (14-8)		331	A0	6C	6-0	36
	0E	FHM	65	7F	FM Prescale for HDEV and M		000E (14-8)		332	A0	6D	6-0	65
	0F	WGP	1C	7F	W/G Prescale		000E (14-8)		333	A0	6E	6-0	1C
	10	NIP	7F	7F	NICAM Prescale		0010 (14-8)		147	A0	6F	6-0	7F
	11	ERR	50	FF	Auto FM Switch Threshold		0021 (10-3)		174	A0	70	7-0	50
	12	VOL	6D	FF	Loud Speaker gain 7000h to 7ff0h		0000 (15-4)		360	A4	62	7-0	6D
SVP	00	SBF	22	3F	SECAM BELL f0		1C (7-2)	CXA2139S(8AH)	8B (7-2)	A4	11	7-2	22
	01	HOS	7	0F	H Oscillation		0C (7-4)		86 (7-4)	A4	0C	7-4	7
	02	SHU	8	0F	Sub Hue Control	TV/Video	05 (7-2)		31E	A4	2D/2F	5-2	8
	03	AFC	1	3	AFC Gain	TV/Video	0F (0)		357 (1-0)	A4	31/32	1-0	1
PIP	00	SDL	1	0F	Delay of Output SELECT		01 (6-3)	SDA9288X(D6H)	192 (6-3)	A4	1C	6-3	2
	01	PPH	15	FF	H Position of TOP-LEFT Pin P		01/02		1A1	A4	29	7-0	15
	02	PPV	2E	FF	V Position of TOP-LEFT Pin P		03 (7-0)		1A2	A4	2A	7-0	2E
	03	YDL	0	07	Delay of Luminance Input		04 (2-0)		195 (2-0)	A4	1F	2-0	0
	04	HDT	0	0F	H Sync Delay for Inset		06 (3-0)		197 (3-0)	A4	21	3-0	0
	05	ISC	0	1	Inset Clock Selection		06 (4)		197 (4)	A4	21	4	1
	06	CLP	1	1	Clamp Pulse Selection		06 (5)		197 (5)	A4	21	5	1
	07	CLC	0	1	Clamp Cycle Selection		06 (6)		197 (6)	A4	21	6	0
	08	CON	1	0F	Contrast Adjustment for inset		09 (7-4)		19A (7-4)	A4	24	7-4	0
	09	PLL	2	03	H Position For A-ch		0D (6-5)		1A4 (6-5)	A4	28	6-5	2
	0A	PDV	0	0F	PIP V Pedestal Level		0E (7-4)		1A5 (7-4)	A4	57	7-4	0
	0B	PDU	0	0F	PIP U Pedestal Level		0E (3-0)		1A5 (3-0)	A4	57	3-0	0
TXT	00	TXH	1	3	Teletext Horizontal Position		10 (1-0)	SAA5261(58H)	358 (1-0)	A4	58	1-0	0
	01	TXV	0	3	Teletext Vertical Position		10 (5-4)		358 (5-4)	A4	58	5-4	0
OPM	00	OSH	0A	3F	OSD H Position	Option-Misc	1F1	CXP750097(60H)	17B (7-2)	A0	27	7-2	0D
	01	COM	1	03	Comb Selection (0: None, NTSC, 2: Digital, 3: 3D)				34D (7-6)	A0	50	7-6	2
	02	APC	1	1	APC Switch				34C (5)	A0	4F	5	1
	03	TSY	0	3	TV Sys at Auto TV Sys				34C (4-3)	A0	4F	4-3	0
	04	MUT	0	1	No Signal Mute				34C (0)	A0	4F	0	0
	05	AFM	1	1	Auto FM Switch				34C (1)	A0	4F	1	1
	06	RFB	0	3	C-BPF Control				34D (5-4)	A0	50	5-4	0
	07	TV0	0	7	Tilt to V-Angle Offset				34D (2-0)	A0	50	2-0	2
	08	DBL	0	1	Disable Blueback Function				34C (2)	A0	4F	2	0
	09	SSO	1	3	Speed Search Option (0-Off, 1-4X, 2-6X, 3-8x)				34C (7-6)	A0	4F	7-6	1
OPB	00	OP1	FF	FF	Optional Bits 1 (see the specified sheet)	Option-Bits		CXP750097(60H)	4E	A0	2D	7-0	FF
	01	OP2	E3	FF	Optional Bits 2 (see the specified sheet)				4F	A0	2E	7-0	67
	02	OP3	0	FF	Optional Bits 3 (see the specified sheet)				50	A0	2F	7-0	31
	03	OP4	87	FF	Optional Bits 4 (see the specified sheet)				51	A0	30	7-0	97

NOTE

- shaded items are fixed data.
- Standard data listed on the Adjustment Item Table are reference values, therefore it may be different for each model and for each mode.
- Note for Different Data Those are the standard data values written on the microprocessor. Therefore, the data values of the modes and stored respectively in the memory. In case of a device replacement, adjustment by rewriting the data value is necessary for some items.

ITEM INFORMATION
No. OPB0 OP1

Item	XTAL 4.43	XTAL 3.58	SECAM	2nd. Lang	B/G	I	D/K	M
KV-XA29M66	1	1	1	1	1	1	1	1

No. OPB1 OP2
APPLICABLE FOR XF-L (14" AND 21") MODELS ONLY

Item	TOP	NICAM	HDEV	Thai Bil	Dis Fav.	DVD Input	AV Input	
KV-XA29M66	1	1	1	0	0	1	1	1

AV Input 00 = no AV Input 01 = 1 AV Input
10 = 2 AV Input 11 = 3 AV Input
DVD Input Effective only when "AV Input" is set to 3 AV Input
Dis Fav. Disable Favorite Channel (Effective For XF-L (21" & 14") Models Only)

No. OPB2 OP3

Item	PIC Rotate*1	2199 Curve*1	Auto PIC	Auto TV sys	US ST	AV Mono*1	11 KEY	Colour SW*2
KV-XA29M66	0	0	1	0	0	0	0	0

PIC Rotate*1 PIC Rotation Switch 0 = disabled, 1 = enabled

2199 Curve*1 2199 volume Curve Selection 0 = Others, 1 = 2199 Volume Curve.

Auto PIC*3 Auto Picture Improvement 0 = off PNC1/PNC2, 1= activate PNC1/PNC2

A-TVsys Auto TV System in Auto Program 0 = disabled, 1 = enabled

US ST* USA Stereo 0 = disabled, 1 = enabled
AV MONO*1 AV Mono model 0 = Stereo, 1 = Mono
(No Balance & Surround selection)

11 Key Front Key Selection 0 = 7 key model, 1 = 11 key model

Color SW*2 Color Data Selection in Dynamic Mode 0 = 65 (No PIP), 1 = 57 (PIP)

Note: *1 - For XA21 Models Only
*2 - For XA34/29/25 Models Only
*3 - For PNC3, the enables are from service item APG & APB

No. OPB3 *OP4

Item	PNC2	Korean ST	Vid NTSC3.58	Wide	Video3	Chinese	Arabic	Thai
KV-XA29M66	1	0	0	0	0	1	1	1

APPLICABLE TO XS ONLY - Sub Language Selection (Bit 0 - Bit 2)

Korean Stereo* Korean Stereo 0 = disabled, 1 = enabled

PNC2 Enable switch of PNC2 0 = disable, 1 = enable

Video NTSC3.58* Video Color System 0 = Multi System, 1 = Single System (NTSC3.58)

Wide Enable wide mode 0 = disable, 1 = enable

Note : *APPLICABLE FOR NTSC MODELS ONLY

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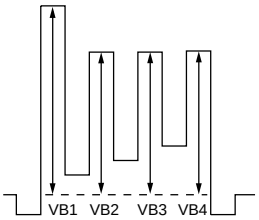
5-3. PICTURE QUALITY ADJUSTMENTS

SUB COLOR ADJUSTMENT (KV-XA25/XA29)

1. Select Video.
2. Input a PAL color-bar.
3. Set to the following condition:
   PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
4. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
5. Set to Service Mode and select SCL 'SCL' with [1] and [4] of the commander then adjust to VB2=VB3=VB4 with [3] and [6].
6. Press [MUTING] → [0] of the commander to write the data.
7. Adjust SCL 'SCL' as step 3 to 5 when receiving NTSC color-bar.
8. Select the 'Wide' mode, write the 'same data-3 steps' for both PAL and NTSC input.



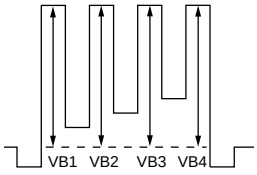
VB2 = VB3 = VB4

SUB COLOR ADJUSTMENT (KV-XA34)

1. Select Video.
2. Input PAL Color Bar
3. Set to following condition PICTURE 100%, BRIGHTNESS 50%, Color 50%.
4. Connect an oscilloscope to pin ① (BOUT) of CN305, A Board.
5. Set the service mode and select SCL 'SCL' with [1] and [4] of the commander then adjust the VB2=VB3=VB4 [3] and [6].
6. Add 6 steps and save the data.
7. Input NTSC Color Bar.
8. Repeat item (4 and 6).
9. Select "WIDE" mode, write the "SAME data" for both PAL and NTSC Color Bar input.

SUB HUE ADJUSTMENT

1. Select Video 1.
2. Input a NTSC 3.58 color-bar, into Video.
3. Set the following condition:
   PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
4. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
5. Select SAJ OI "SHU" with [1] and [4] of the commander by setting to Service Mode and adjust to VB1=VB2=VB3=VB4 with [3] and [6].



VB1 = VB2 = VB3 = VB4

6. Press [MUTING] → [0] of the commander to write the data.
7. Adjust SAJ OI "SHU" as step 2 to 5 when receiving TV mode.

5-4. DISPLAY POSITION ADJUSTMENT

PIP POSITION

1. Input a PAL color-bar.
2. Press PIP button of the remote commander to set the PIP picture.
3. Set to Service Mode.
4. Use [1] and [4] of the remote commander to select PIP 1 "PPH" and use [3] and [6] to set data "15".
5. Select PIP 2 "PPV" to set data "2E".
6. Press [MUTING] → [0] of the remote commander to write the data.
7. Use the screen display menu changing the PIP position to check the PIP position.

5-5. DEFLECTION ADJUSTMENT

NORMAL MODE (50Hz)

1. Set to Service Mode.
2. Using the [1] and [4] button, select category GEO (Service Mode).
3. Raise/lower the data using the [3] and [6] buttons.
   Select and adjust the following items to obtain optimum image.

   Service Item

GEO :	00	HPS	H POSITION
	01	HSZ	H SIZE
	02	PAP	PIN AMP
	03	TLT	TILT
	04	VPS	V POSITION
	05	VSZ	V SIZE
	06	SCO	S CORRECTION
	07	VLN	V LINEARITY
	08	BOW	AFC BOW
	09	AGL	AFC ANGLE
	0A	UPN	UPPER CORNER PIN
	0B	LPN	LOWER CORNER PIN

WIDE MODE (50Hz)

4. Input PAL color bar.
5. Adjust condition change to WIDE MODE : ON.
6. Using the [1] and [3] button, select category GEO (Service Mode).
7. Copy (item from normal mode (50Hz)) adjusted data for the following item:
   Service Item

GEO :	01	HSZ	H POSITION
	05	VSC	V POSITION
	06	SCO	S CORRECTION
	07	VLN	V LINEARITY

8. Raise/lower data using [3] and [6] buttons, select and adjust the following items to obtain optimum image.

   Service Item

GEO :	00	HPS	H POSITION
	02	PAP	PIN AMP
	03	TLT	TILT
	04	VPS	V POSITION
	08	BOW	AFC BOW
	09	AGL	AFC ANGLE
	0A	UPN	UPPER CORNER PIN
	0B	LPN	LOWER CORNER PIN

9. After confirm WIDE MODE : ON – OFF.
10. Repeat same steps for NTSC input signal.

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NORMAL MODE (60Hz)

11. Input 525/60Hz signal.
12. Using the [1] and [4] buttons select category GEO (Service Mode).
13. Select and adjust the following items to obtain obtimum image. Raise/lower the data with the [3] and [6] buttons.

Service Item

GEO :	00	HPS	H POSITION
	01	HSZ	H SIZE
	02	PAP	PIN AMP
	03	TLT	TILT
	04	VPS	V POSITION
	05	VSZ	V SIZE
	06	SCO	S CORRECTION
	07	VLN	V LINEARITY
	08	BOW	AFC BOW
	09	AGL	AFC ANGLE
	0A	UPN	UPPER CORNER PIN
	0B	LPN	LOWER CORNER PIN

WIDE MODE (60Hz)

14. Input monoscope signal.
15. Adjust condition change to WIDE MODE: ON.
16. Using the [1] and [4] button select category GEO (Service Mode).
17. Copy (item from NORMAL MODE (60Hz)) adjusted data for the following items:

Service Item

GEO :	01	HSZ	H SIZE
	05	VSZ	V SIZE
	06	SCO	S CORRECTION
	07	VLN	V LINEARITY

18. Raise/lower the data with the [3] and [6] buttons. Select and adjust the following items to obtain optimum image.

Service Item

GEO :	00	HPS	H POSITION
	02	PAP	PIN AMP
	03	TLT	TILT
	04	VPS	V POSITION
	08	BOW	AFC BOW
	09	AGL	AFC ANGLE
	0A	UPN	UPPER CORNER PIN
	0B	LPN	LOWER CORNER PIN

19. After confirm WIDE MODE : ON – OFF.

Note:

For Deflection Adjustment, set PICTURE MODE to "SOFT".

5-6. A BOARD ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

1. Enter to Service Mode.
2. Press commander buttons [5] and [0] (Data Initialize), and [2] and [0] (Data Copy) to initialize the data.
3. Call each item number and check if the respective screen shows the normal picture.
   In cases where items are not well adjusted, rectify the fine adjustment.
   Write the data per each item number ([MUTING] +[0]).
4. Select item numbers “OPB00” (OP1), “OPB01” (OP2), "OPB 02" (OP3) and "OPB 03" (OP4) respectively set the bit per model with command buttons [3] and [6].
5. Press commander buttons [8] and [0] (Test Normal) to return to the data that was set on the shipment from the factory.
   (This will also cancel Service Mode.)

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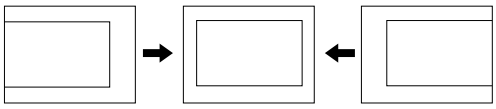
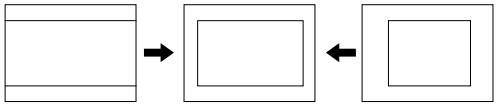
5-7. PICTURE DISTORTION ADJUSTMENT (1)

Item Number 00 – 0B

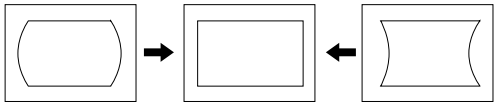
GEO 0 HPS (H POSITION)



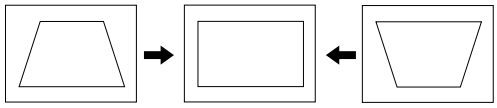
GEO 1 HSZ (H SIZE)



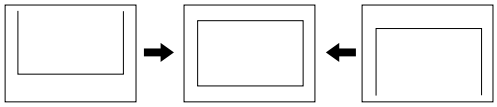
GEO 2 PAP (PIN AMP)



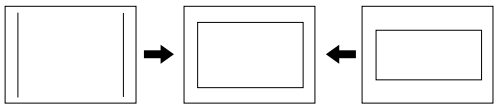
GEO 3 TLT (TRAPEZIUM)



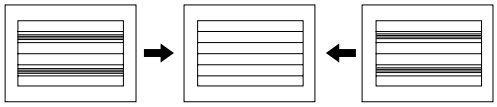
GEO 4 VPS (V POSITION)



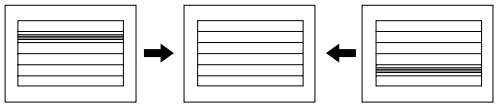
GEO 5 VSZ (V SIZE)



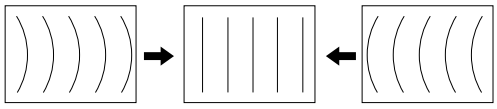
GEO 6 SCO (VERTICAL S-Correction)



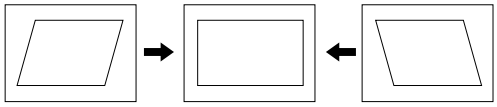
GEO 7 VLN (V LINEARITY)



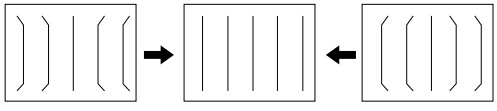
GEO 8 BOW (AFC.BOW)



GEO 9 AGL (AFC.ANGLE)

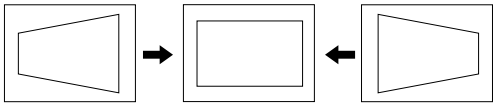


GEO 0A UPN (UPPER CORNER PIN)
GEO 0B LPN (LOWER CORNER PIN)



PICTURE DISTORTION ADJUSTMENT (2)

H-TRAPEZOID (DAC 4 HTR)



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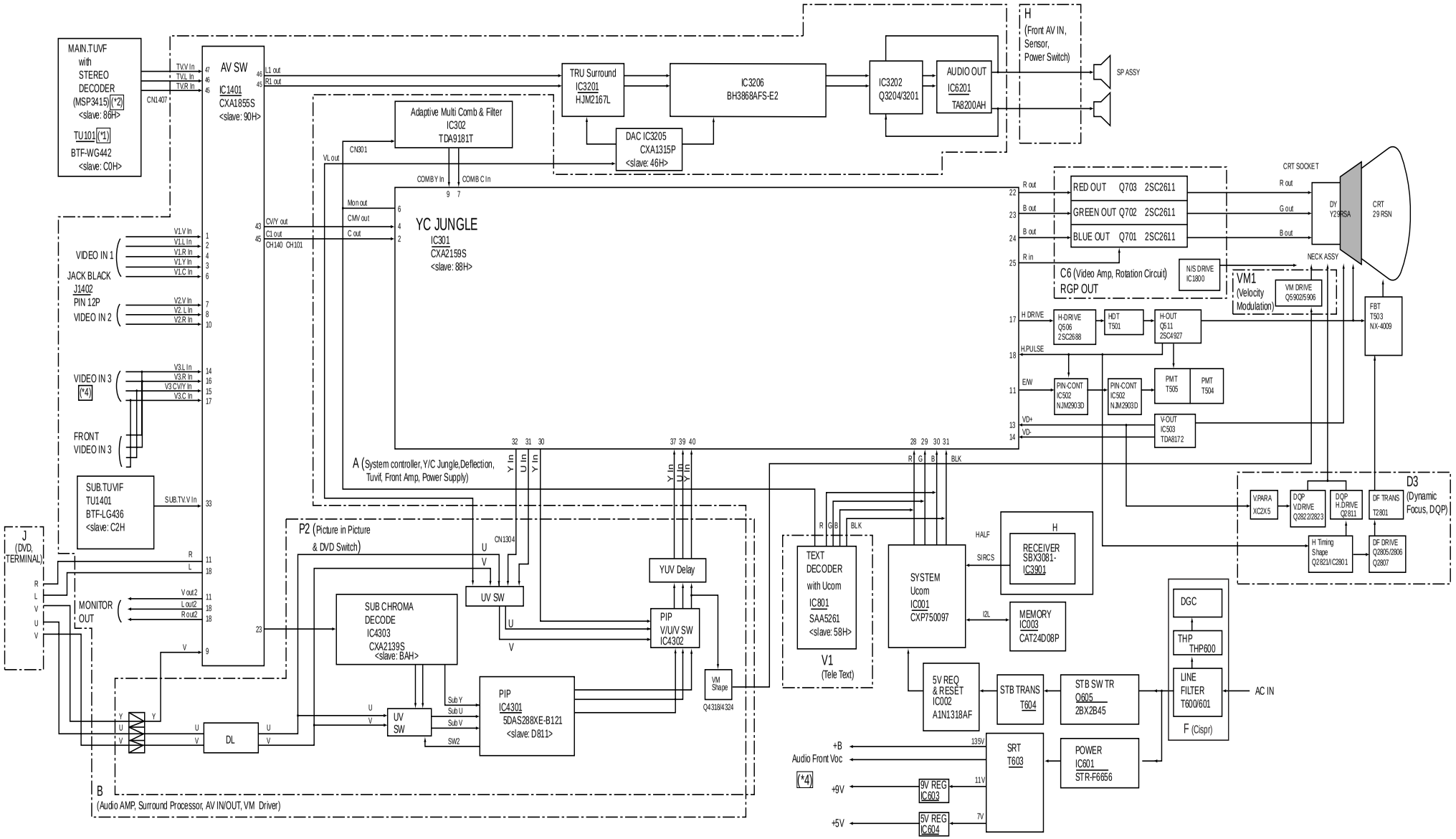
SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM



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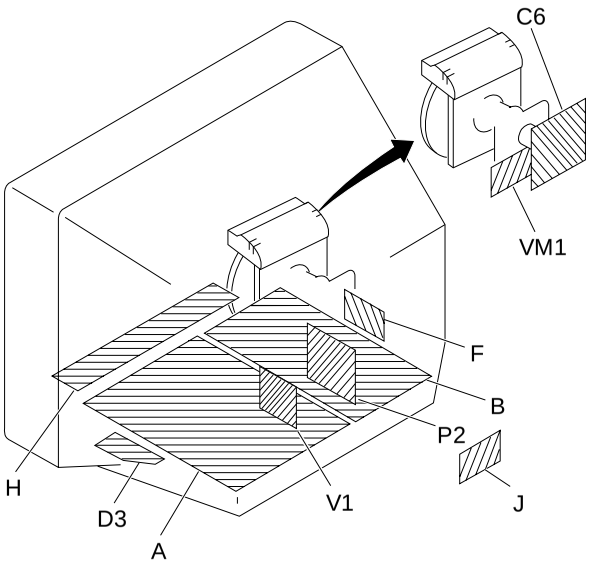
6-2. CIRCUIT BOARDS LOCATION



6-3. SCHEMATIC DIAGRAM

Note:

- All capacitors are in µF unless otherwise noted.
- All electrolytic capacitors are rated at 50V unless otherwise noted.
- All resistors are in ohms.
  kΩ = 1000Ω, MΩ = 1000kΩ
- Indication of resistance which does not have rating electrical power is as follows.

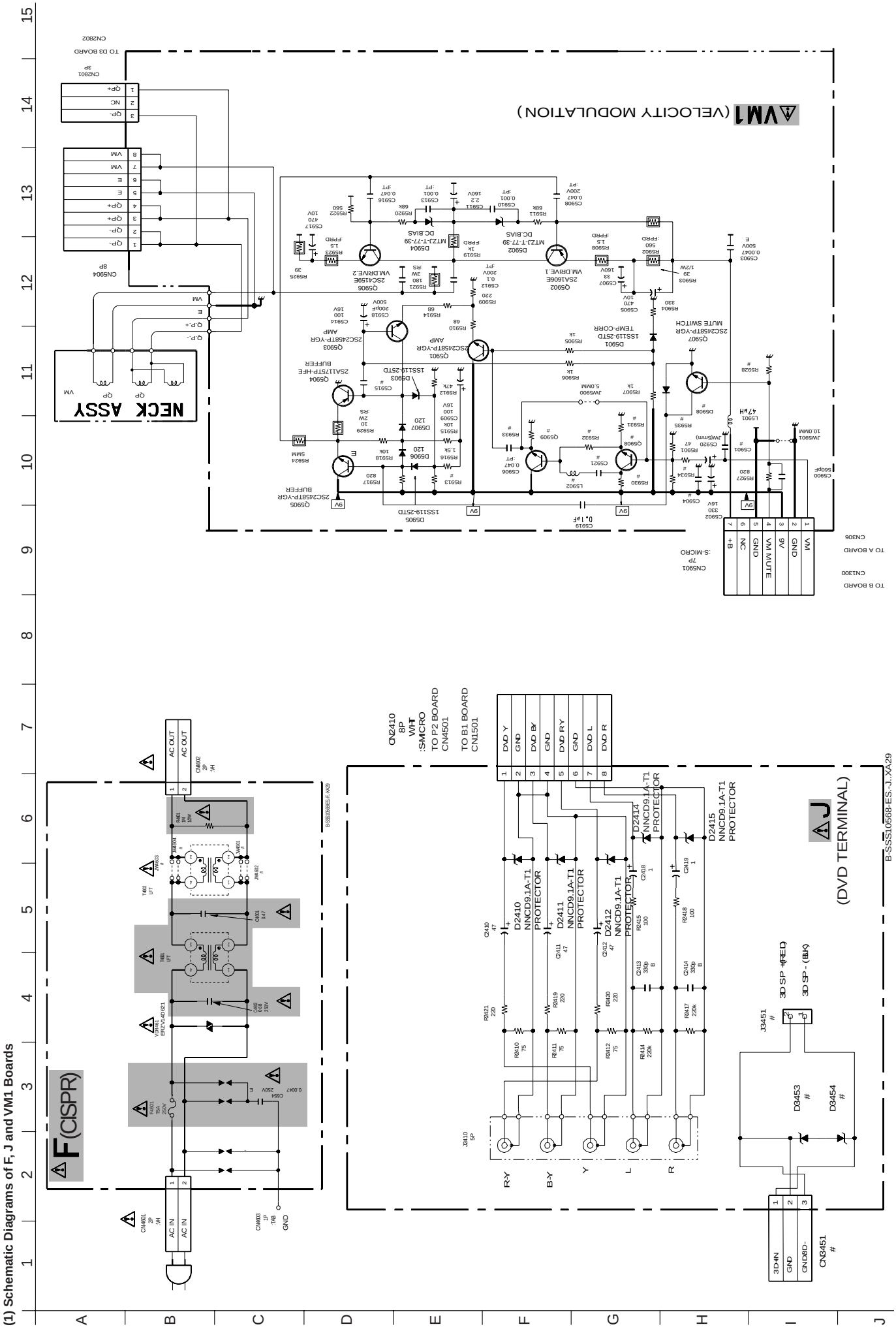
  Pitch: 5 mm
  Rating electrical power 1/4W (CHIP: 1/10W)

- : nonflammable resistor.
- △ : internal component.
- : panel designation or adjustment for rrepair.
- All variable and adjustable resistors have characteristic curve B unless otherwise noted.
- **Redings are taken with a color-bar signal input.**
  no mark : PAL
  ( ) : SECAM
  [ ] : NTSC 3.58
  << >> : NTSC 4.43
- **Readings are taken with a 10W MW digital multimeter.**
- **Voltage are dc with respect to ground unless otherwise noted.**
- **Voltage variations may be noted due to normal production tolerances.**
- **All voltage are in V.**
- ✻ **: Cannot be measured.**
- **Circled numbers are waveform references.**
- **: B +bus.**
- **: B –bus.**
- ⇨ **: signal path.**

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ✻	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The component identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.



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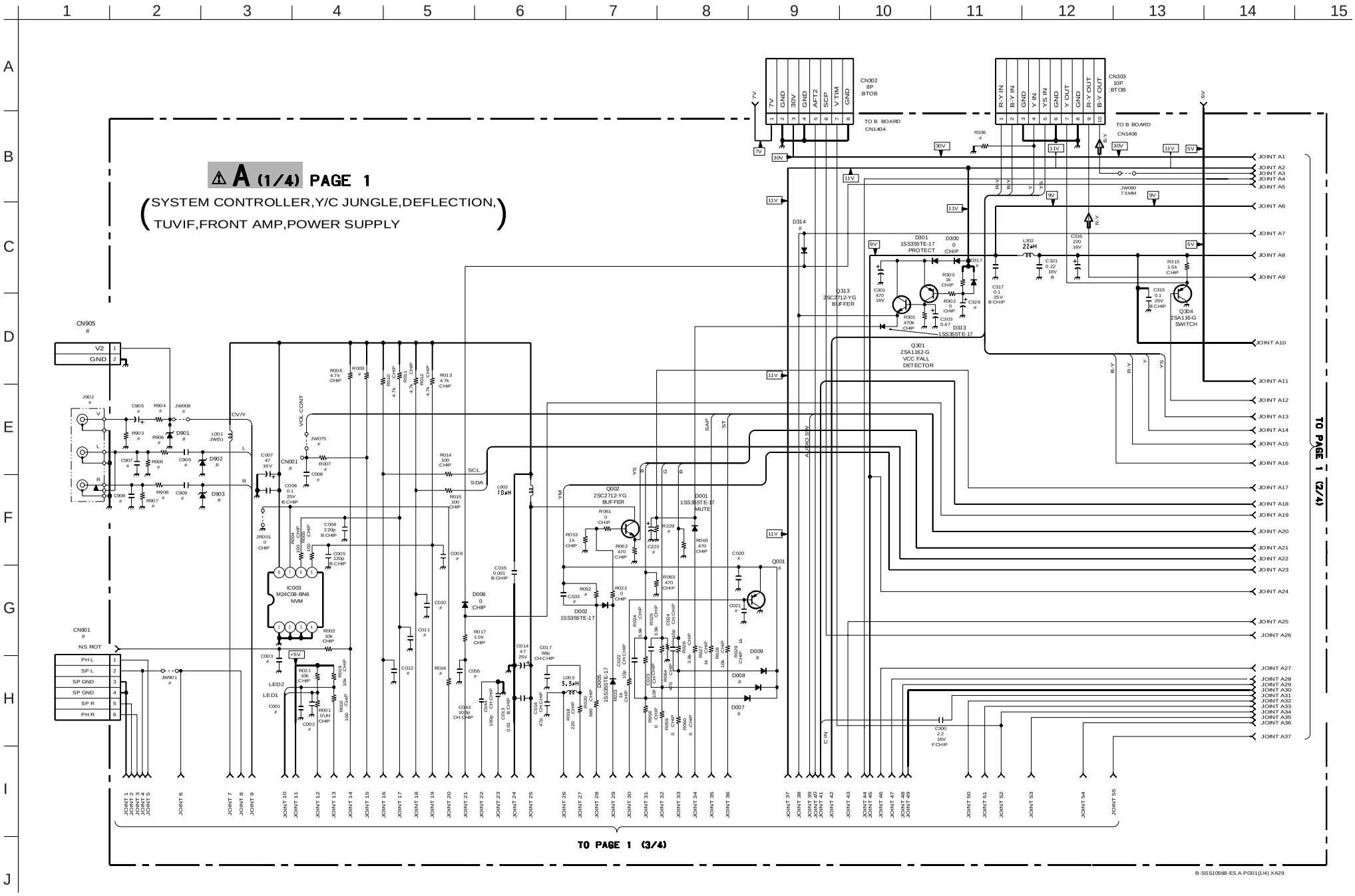
(2) Schematic Diagram of A Board



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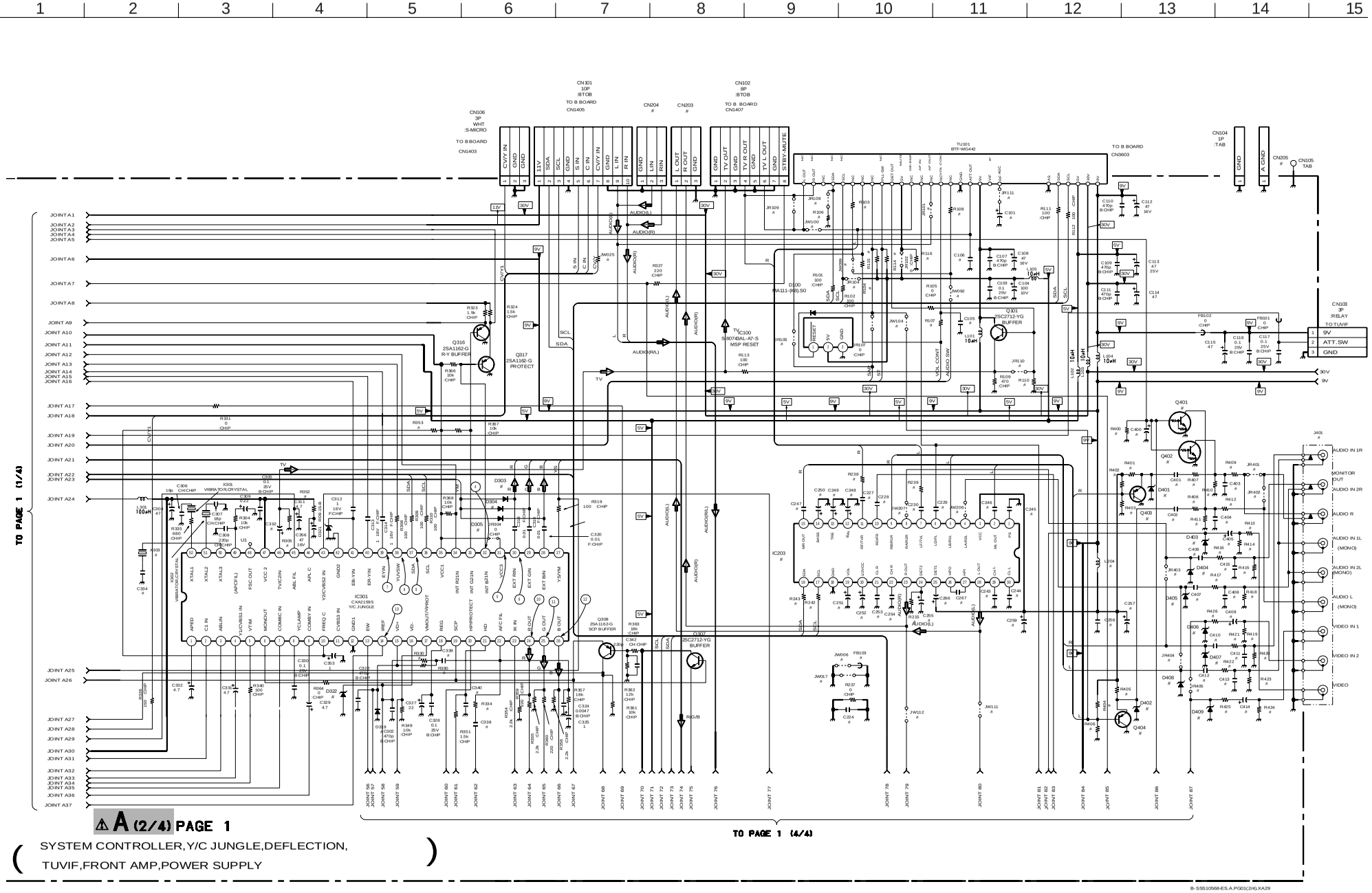

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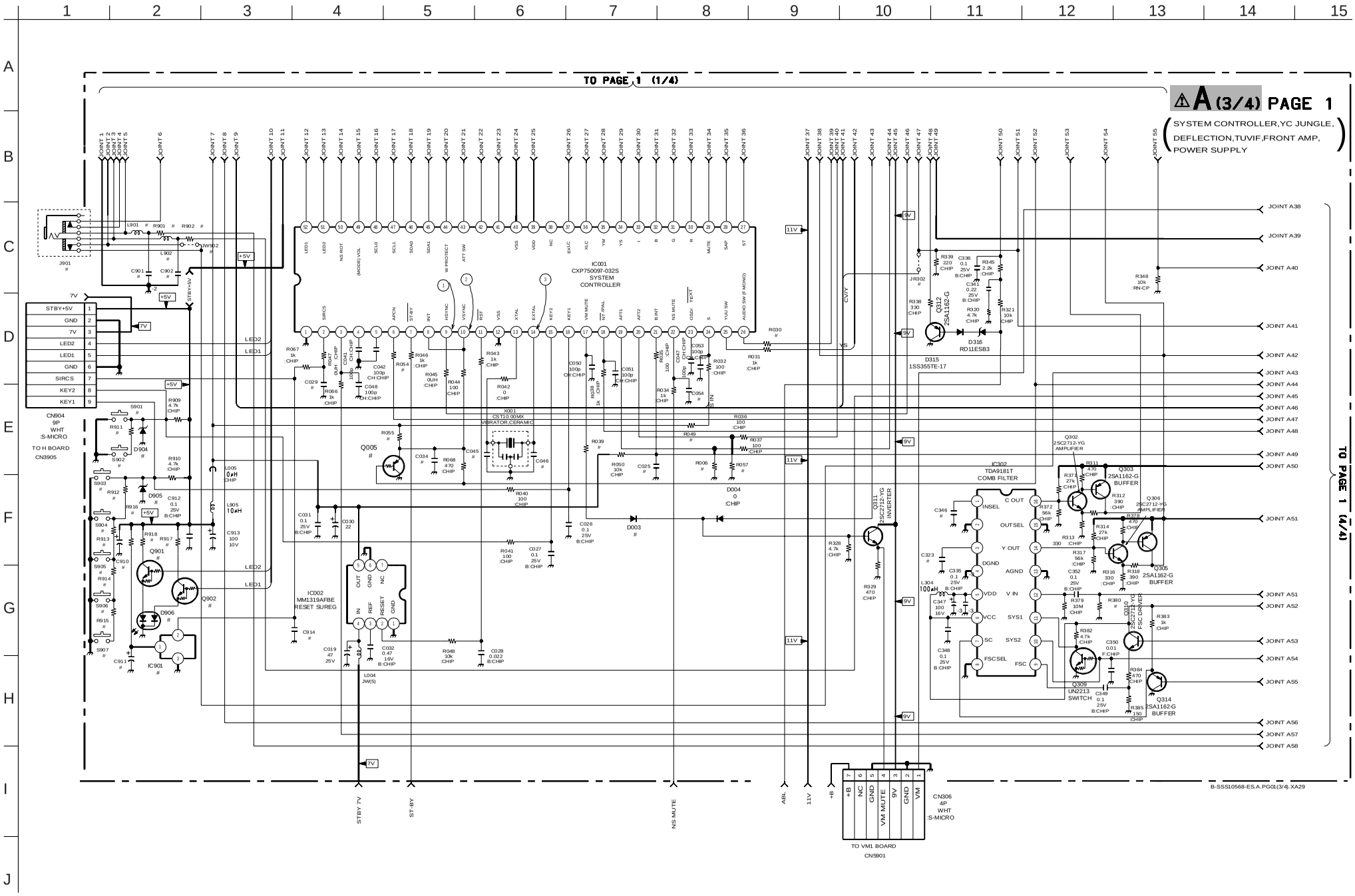

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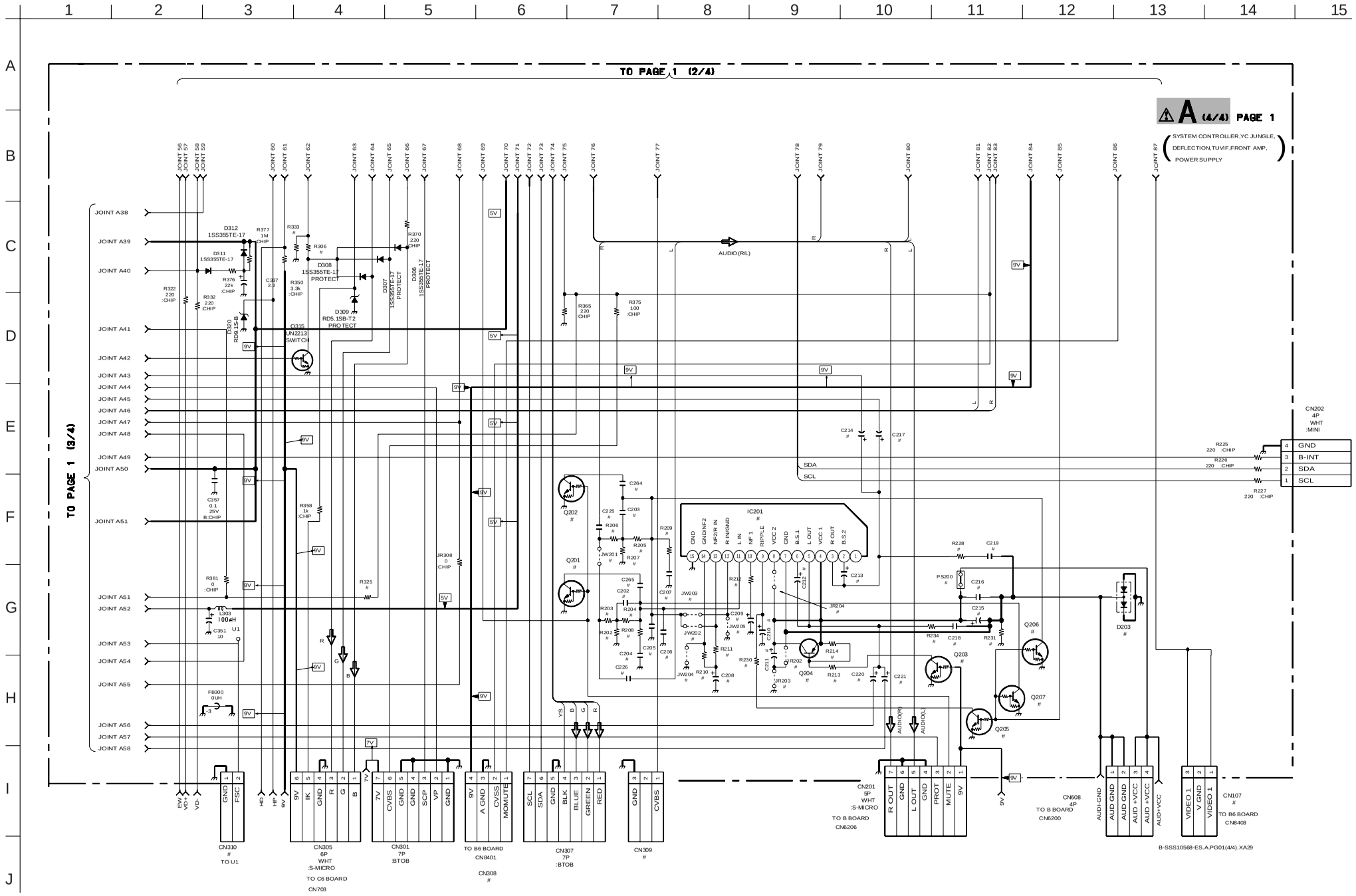

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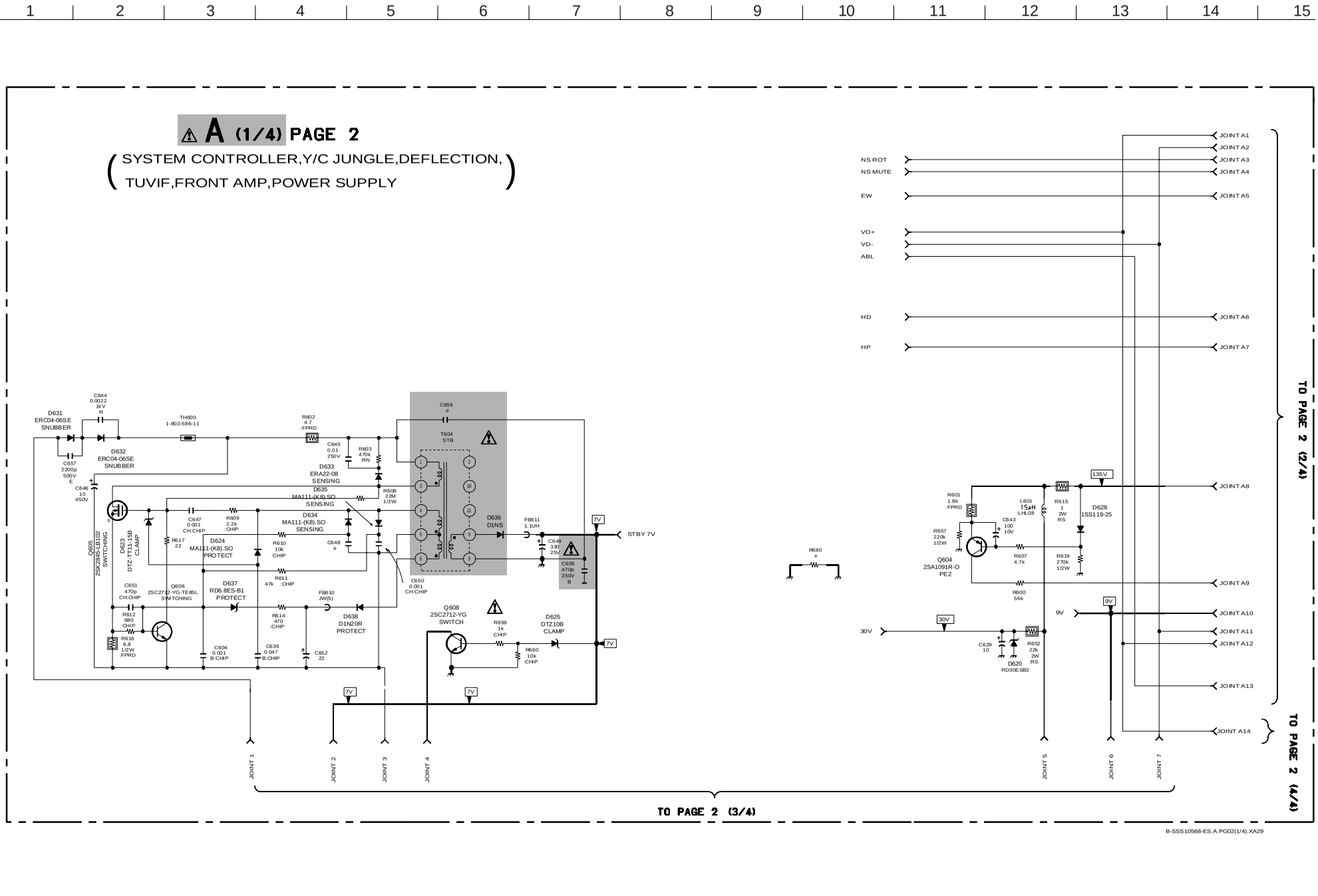

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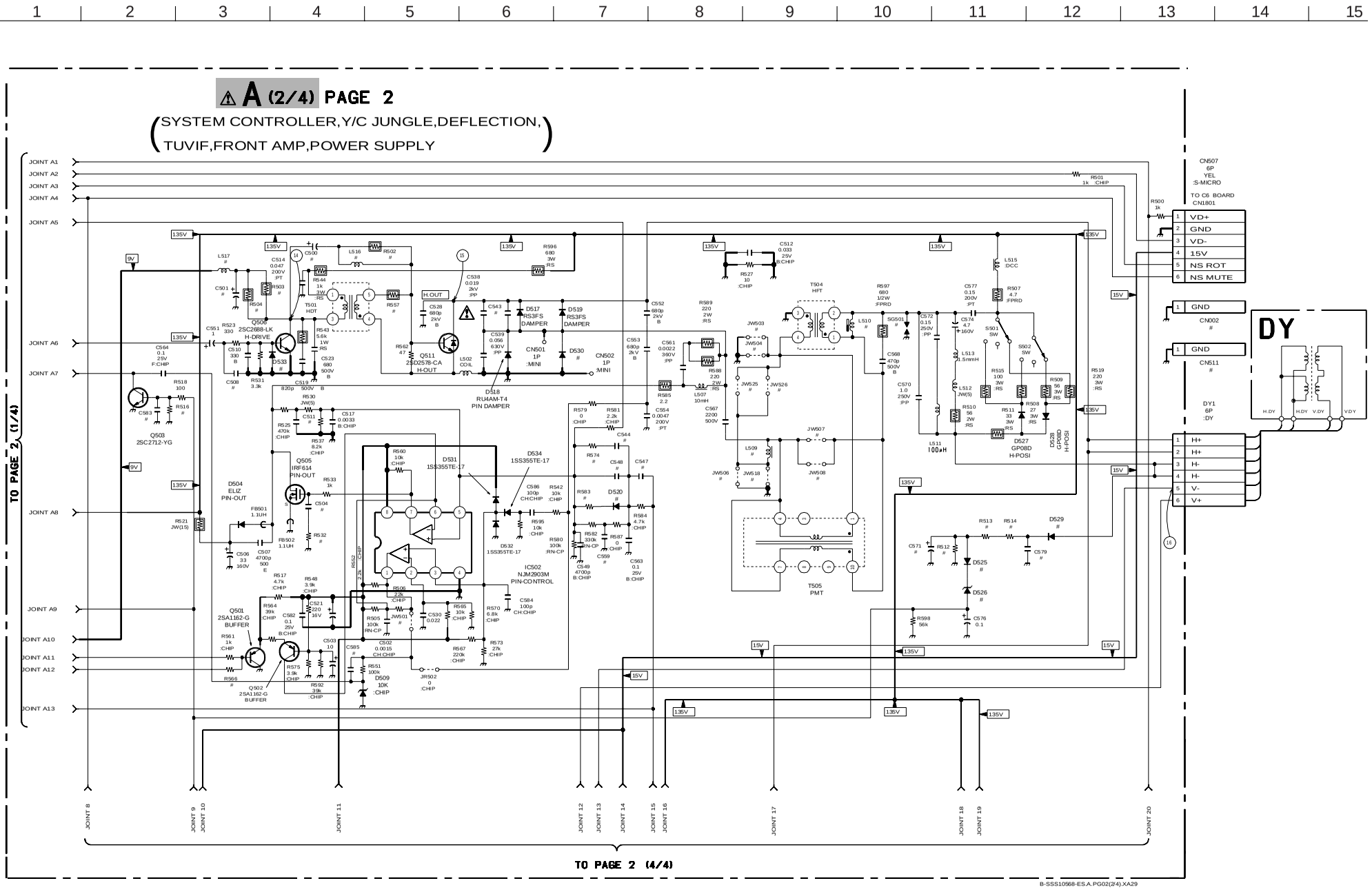
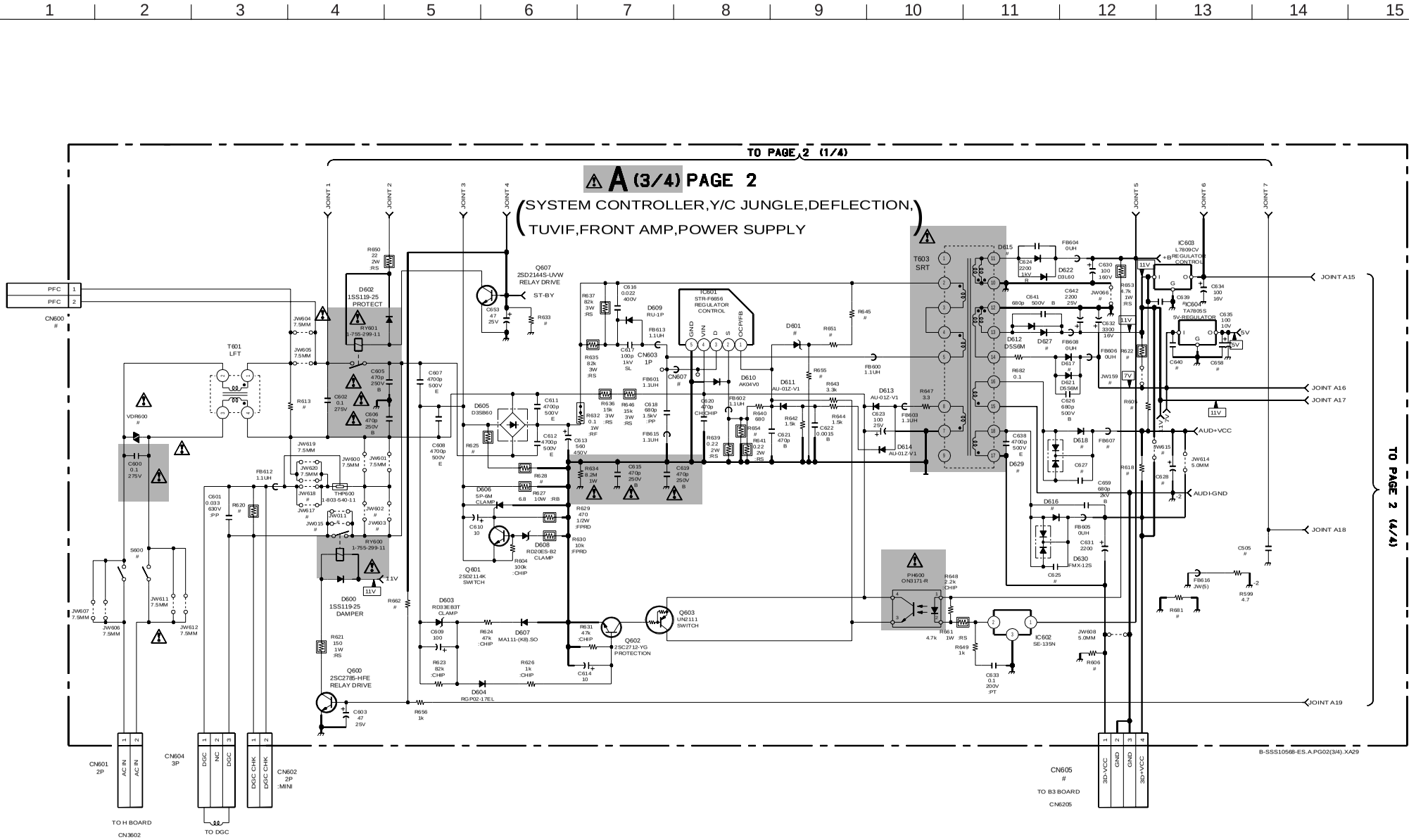
⚠ A (2/4) PAGE 2

(SYSTEM CONTROLLER,Y/C JUNGLE,DEFLECTION,
TUVIF,FRONT AMP,POWER SUPPLY)



http://cxema.ru



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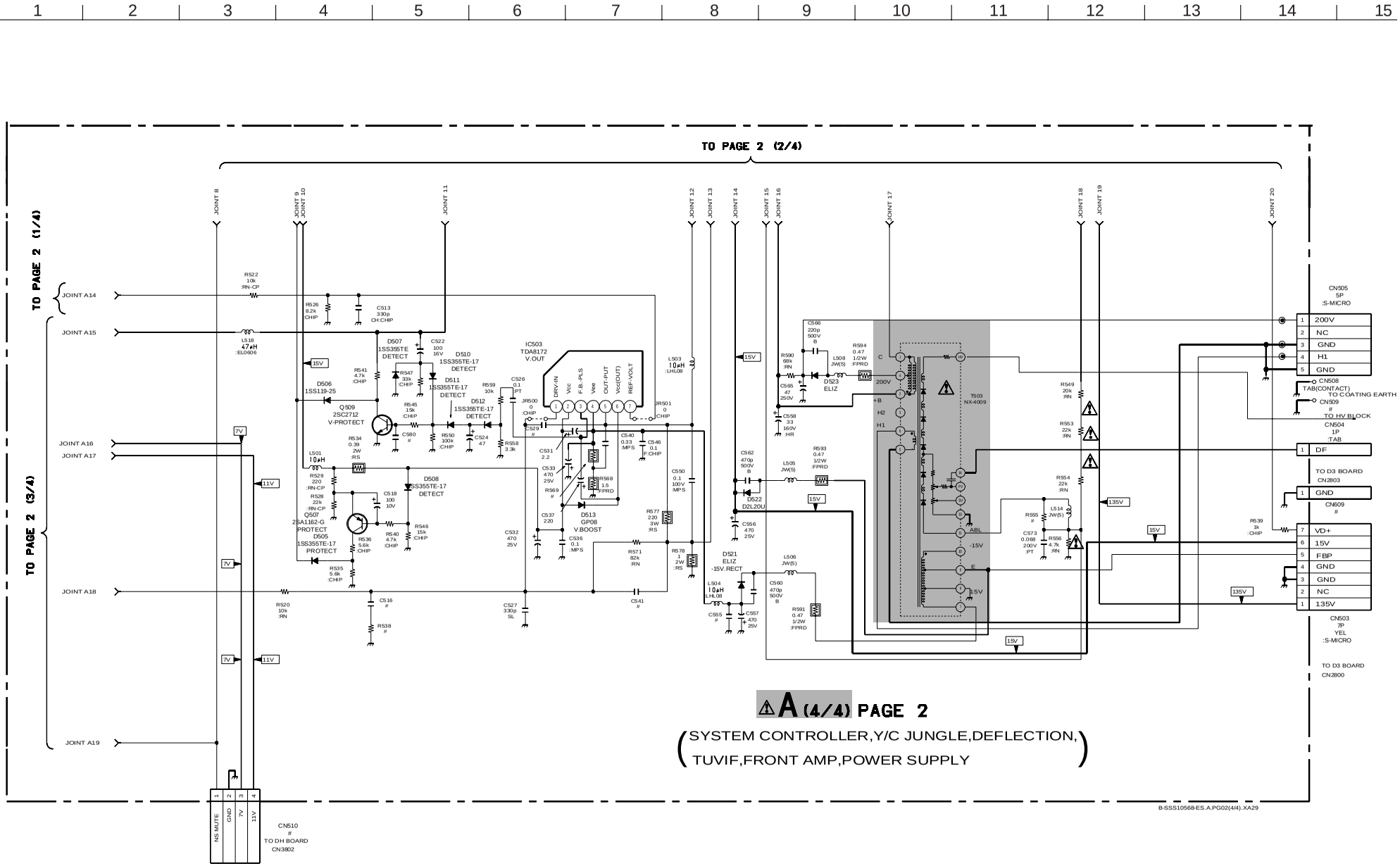

⚠A (4/4) PAGE 2

(SYSTEM CONTROLLER,Y/C JUNGLE,DEFLECTION, TUVIF,FRONT AMP,POWER SUPPLY)

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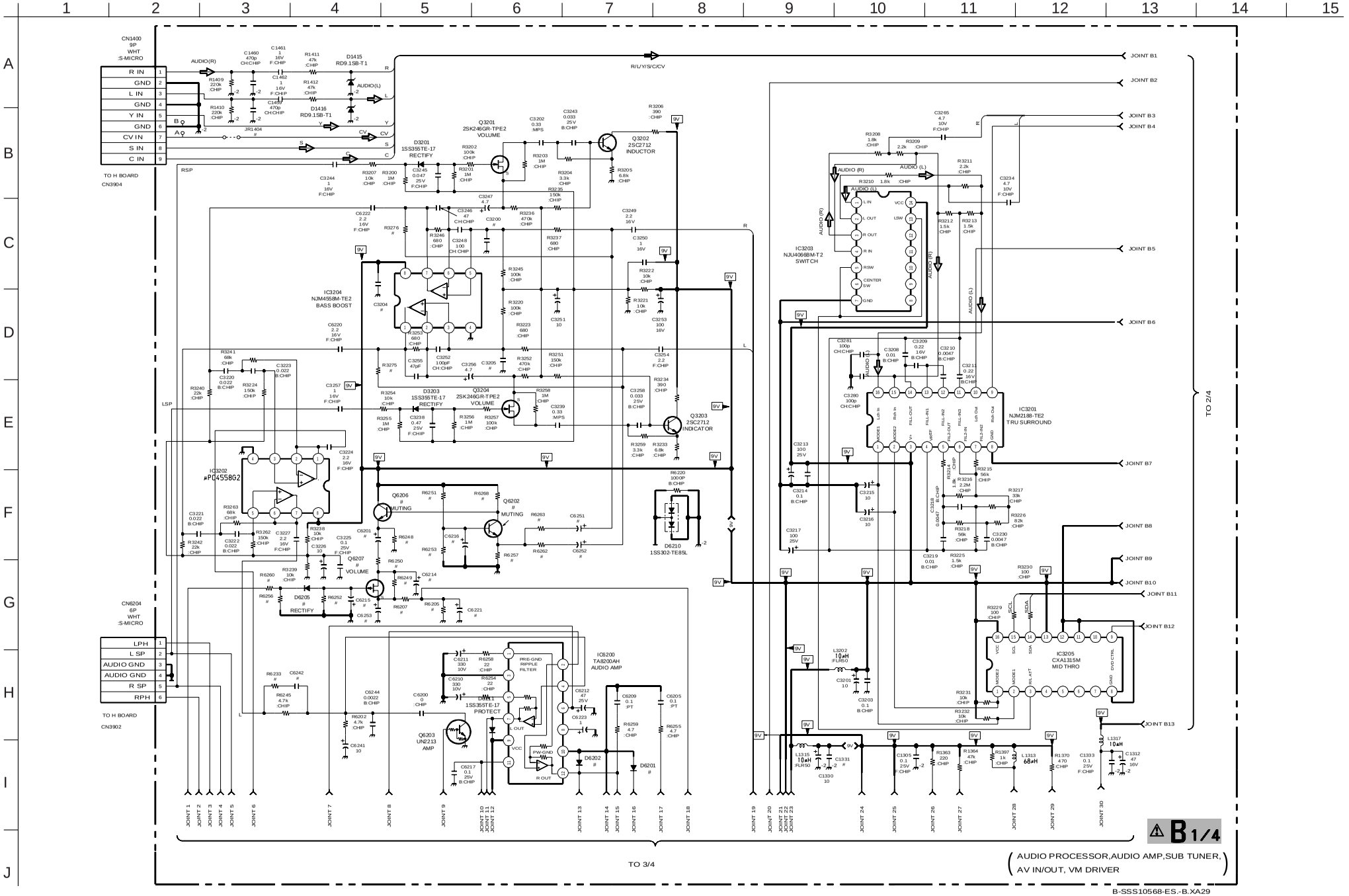
(3) Schematic Diagram of B Board



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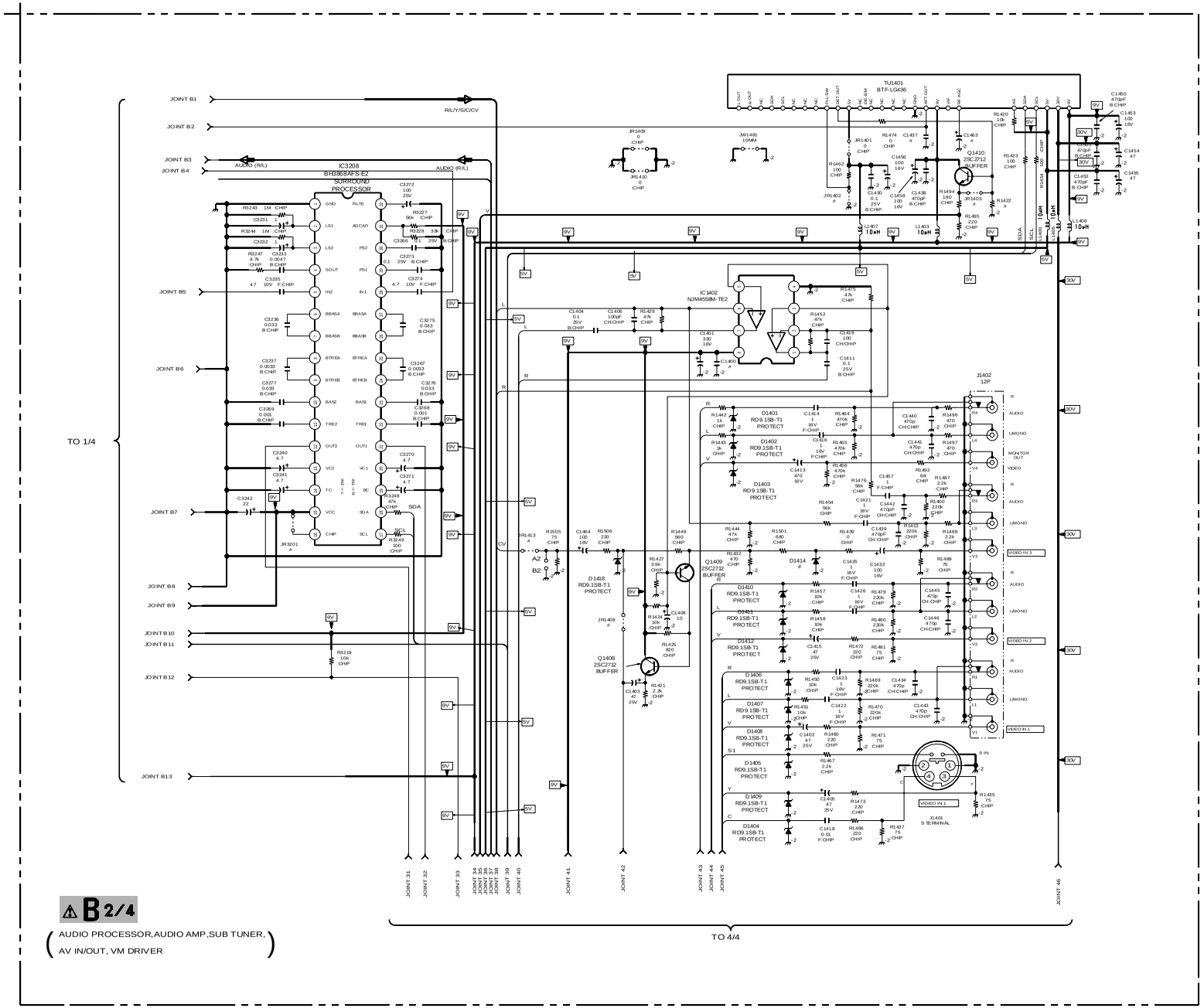
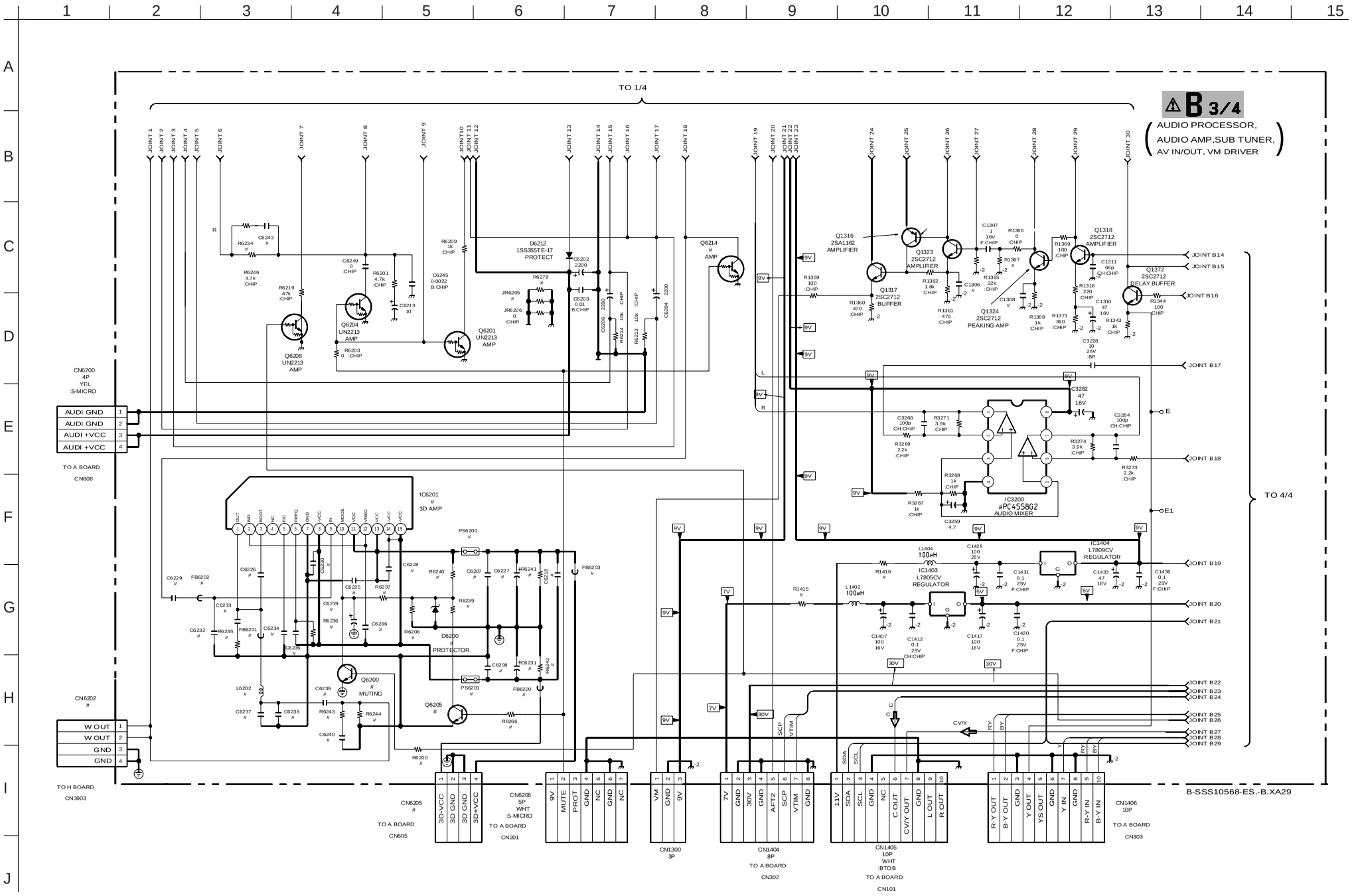
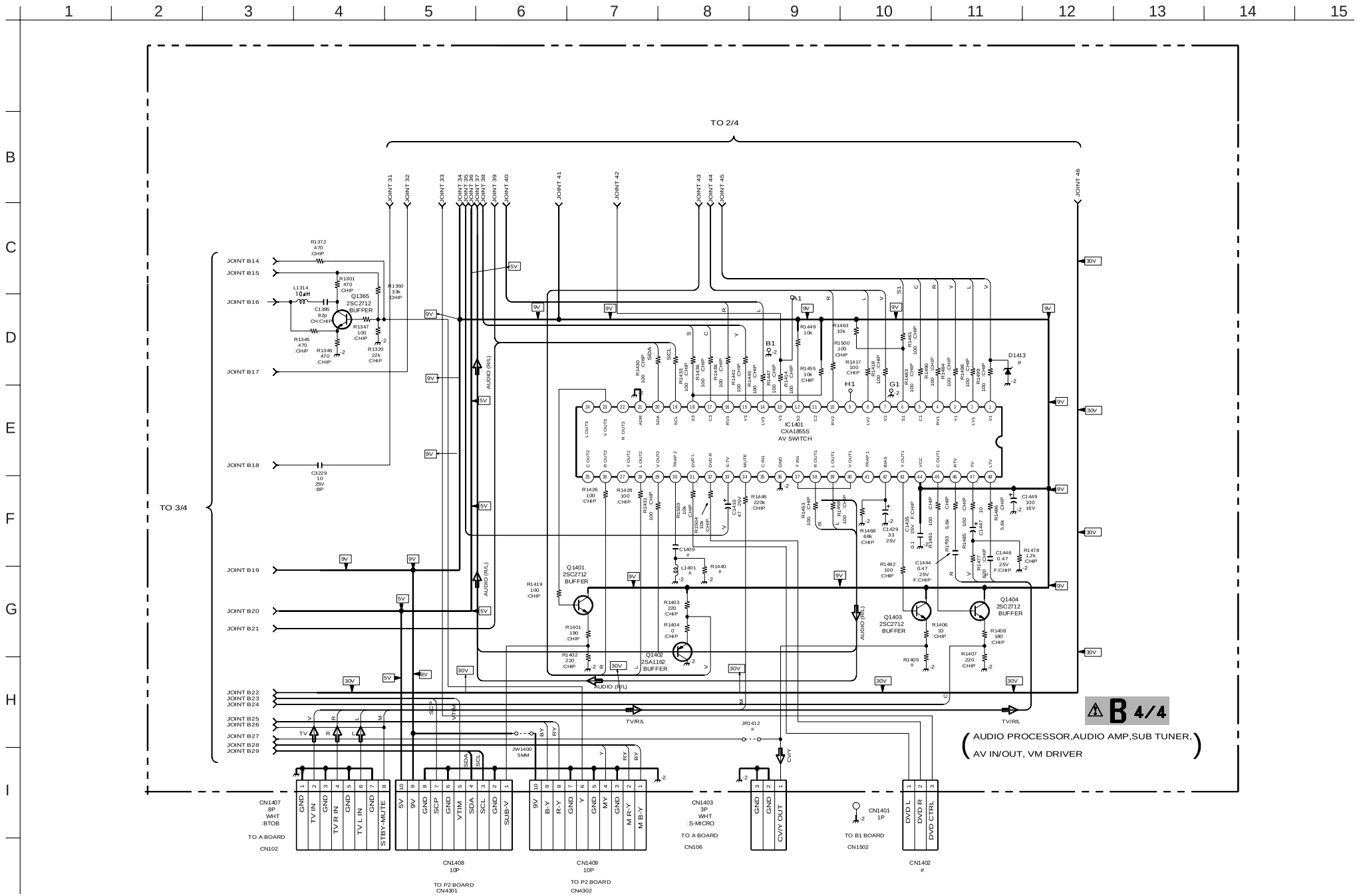


http://cxema.ru



http://cxema.ru



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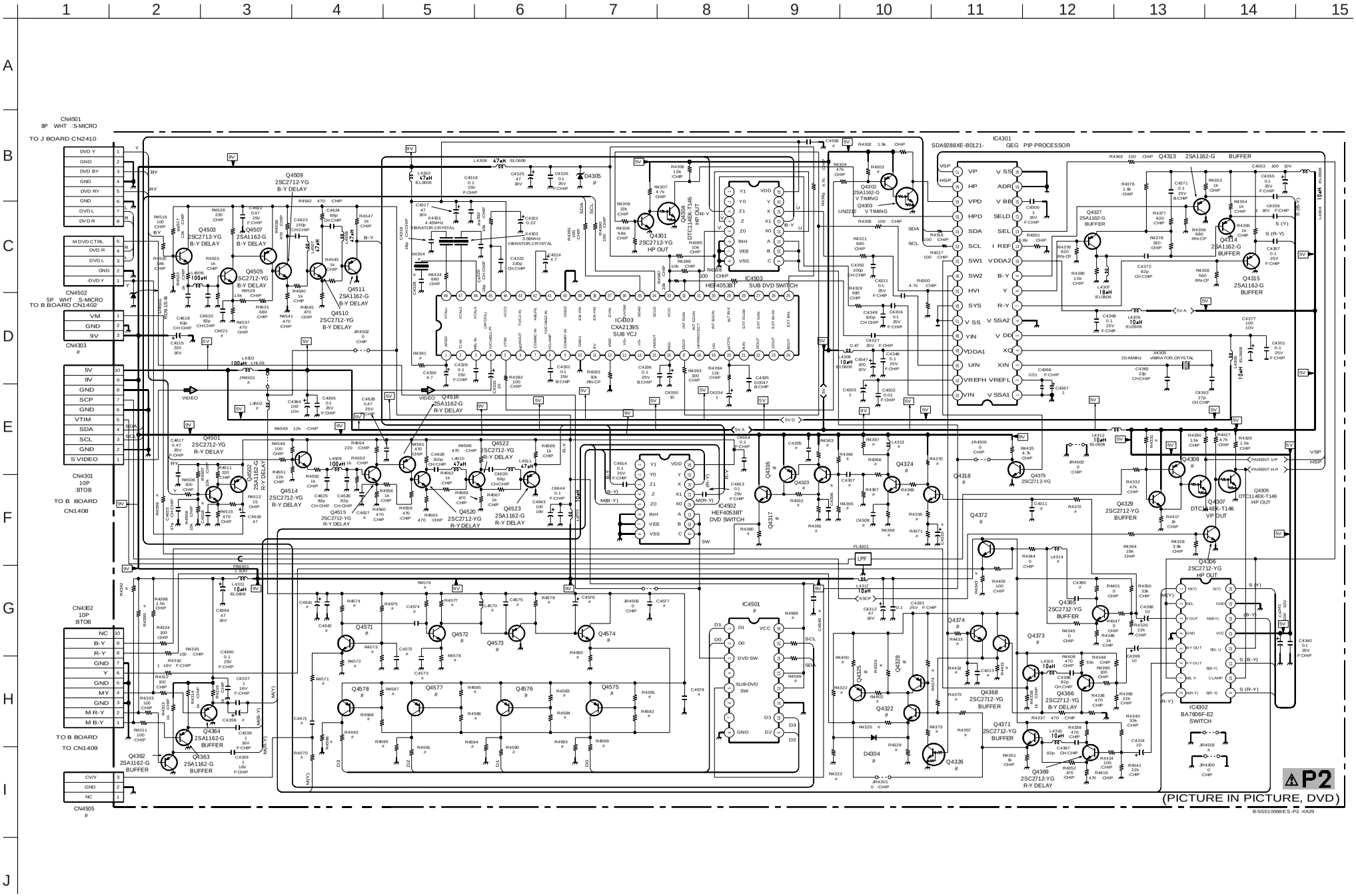
(4) Schematic Diagram of P2 Board



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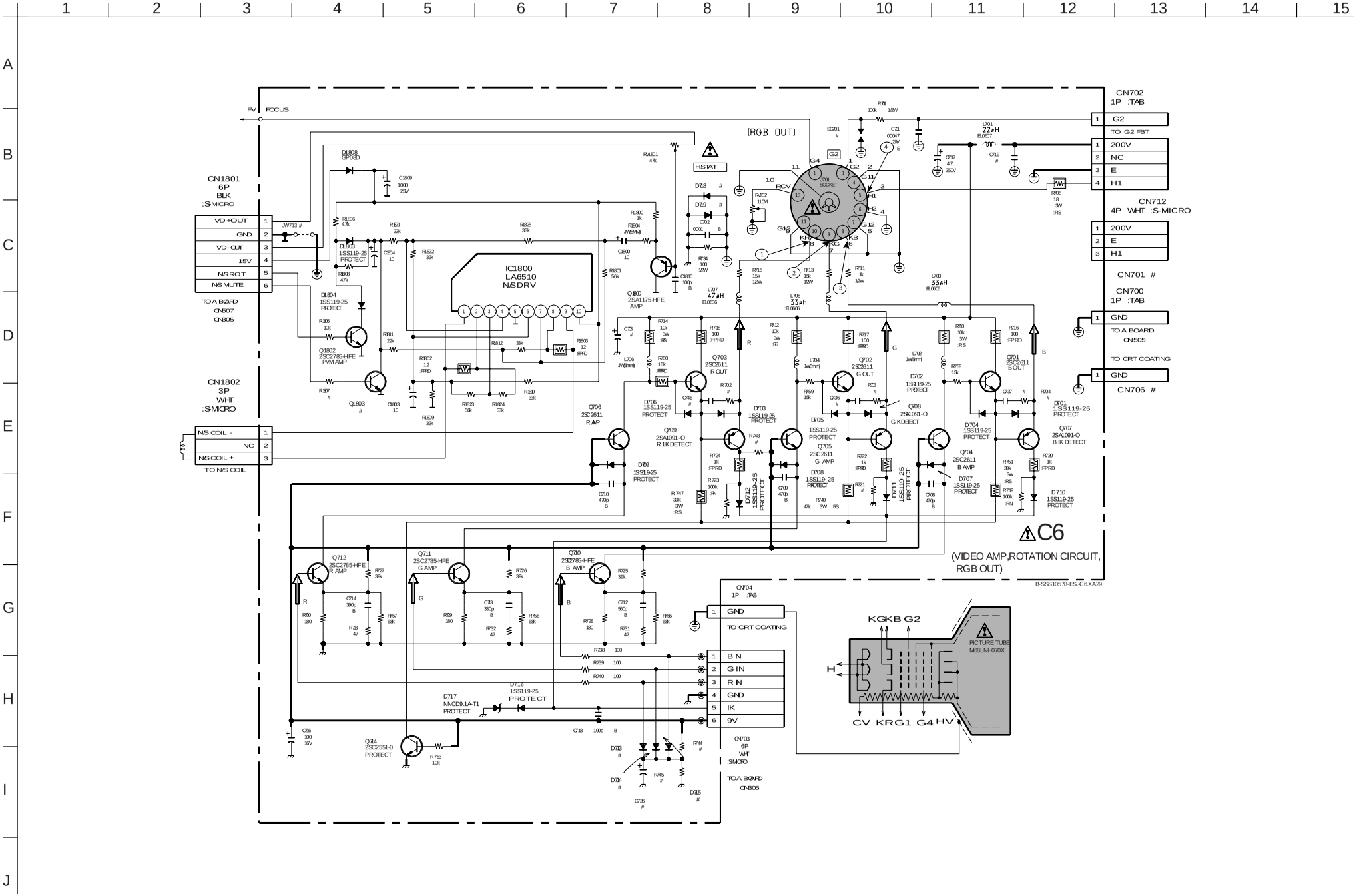
(5) Schematic Diagram of C6 Board



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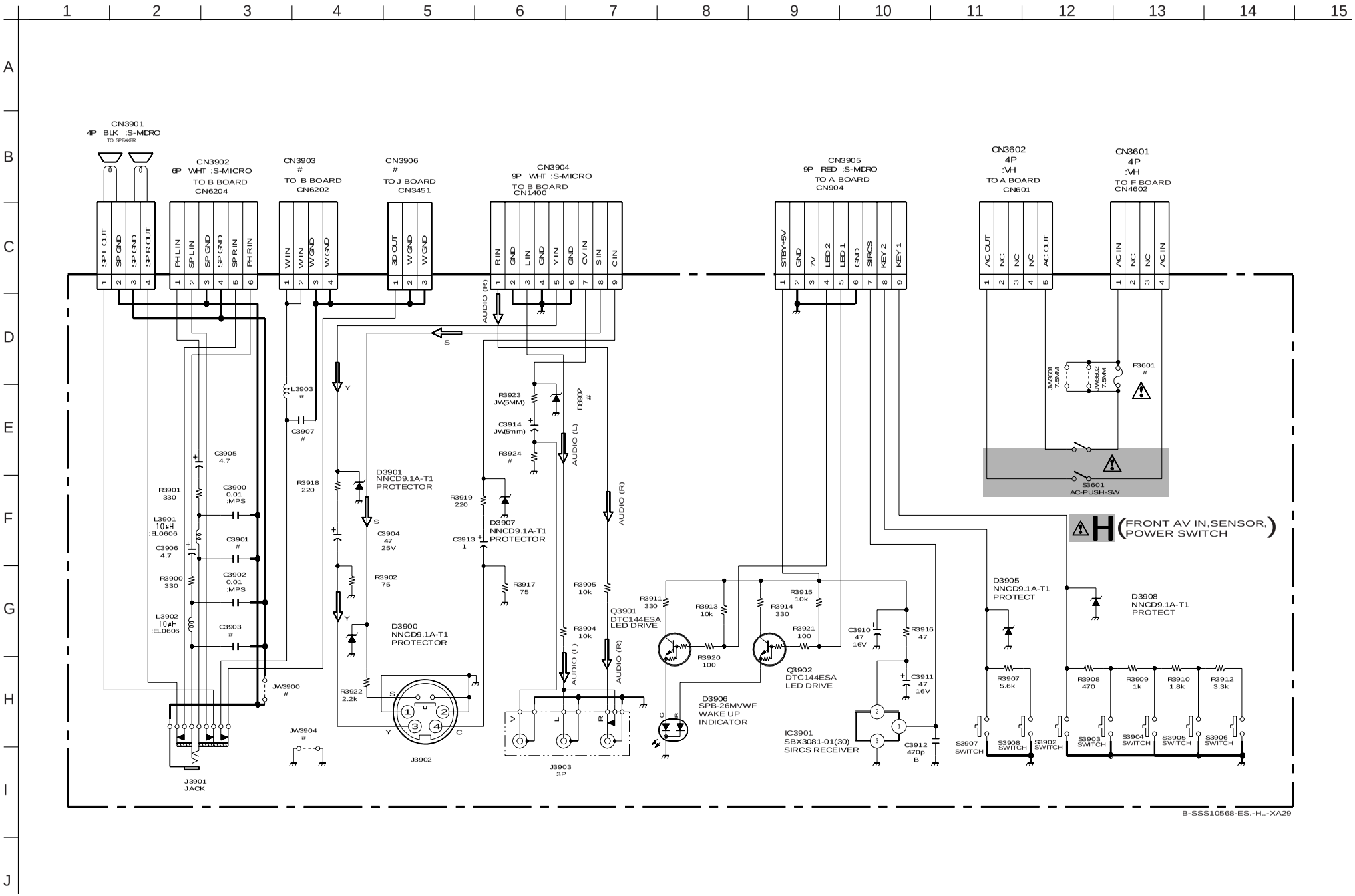
(6) Schematic Diagram of H Board



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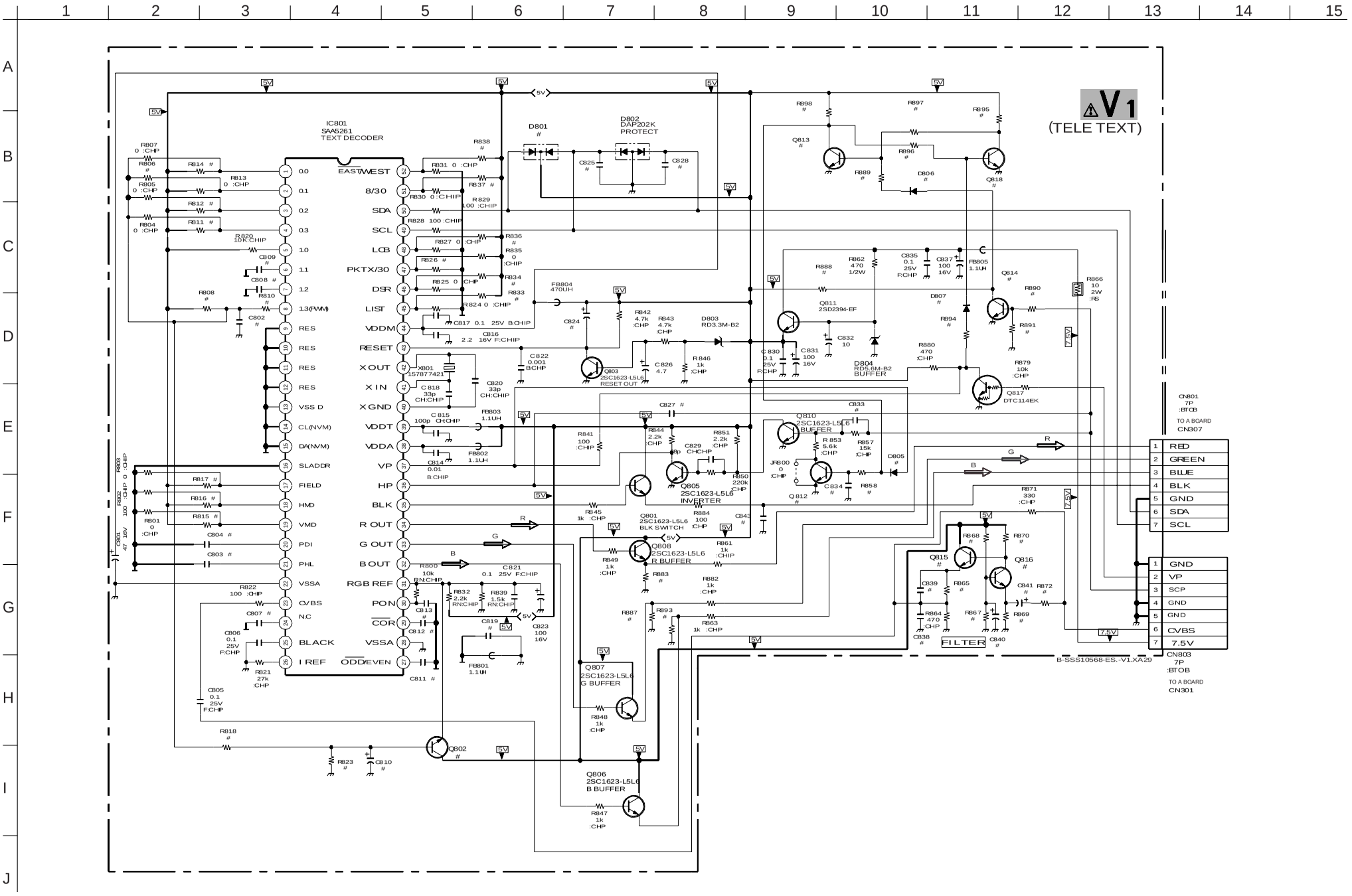
(7) Schematic Diagram of V1 Board



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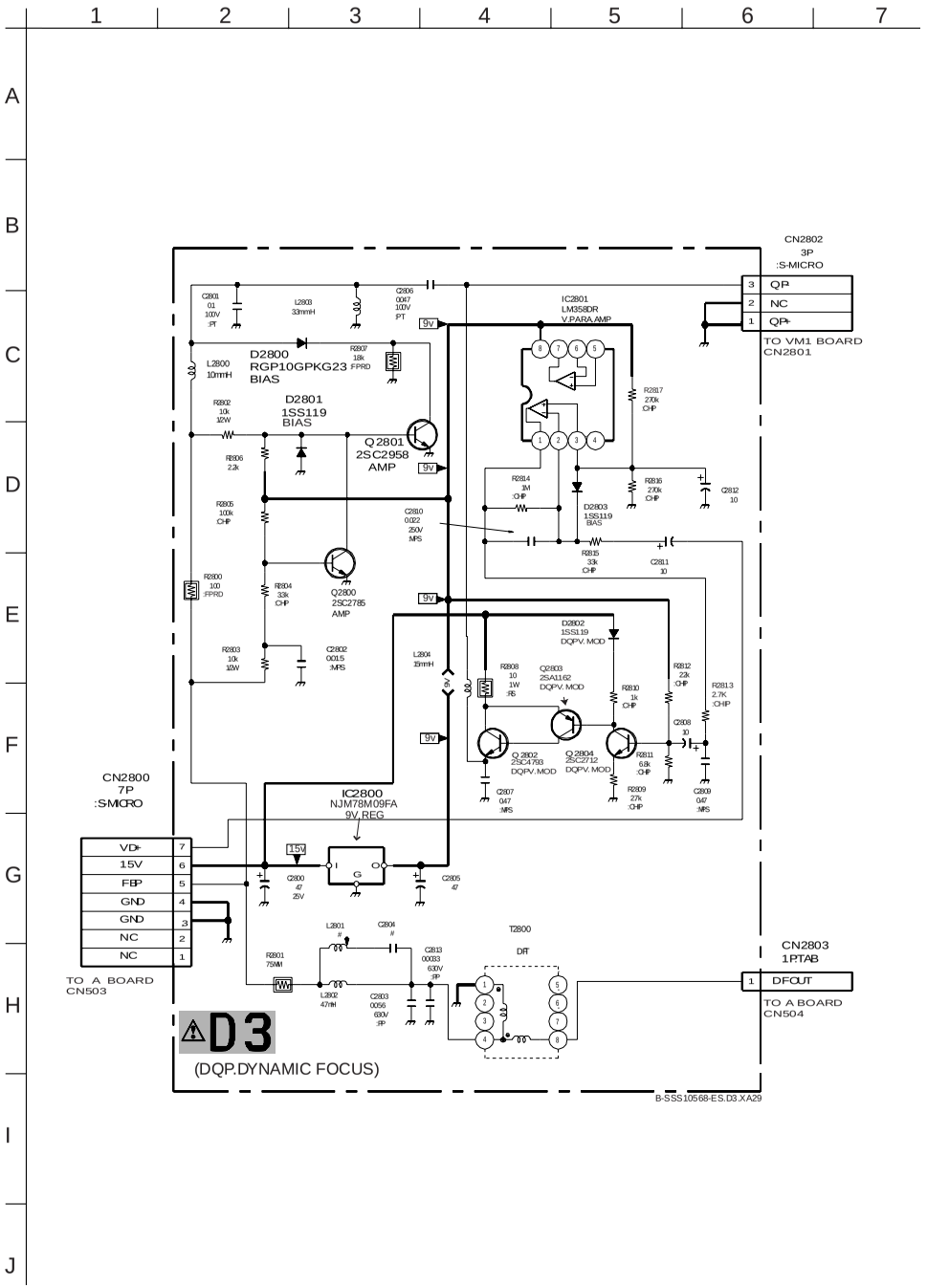
(8) Schematic Diagram of V2 Board



6-4 VOLTAGE MEASUREMENTS

A(1/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC001	1	0		6	0		45	8.6
	2	4.9		7	0		46	5.0
	3	0.7	IC003	1	0		47	8.7
	4	4.9		2	0		48	2.1(0.2)
	5	4.9		3	0		49	5.3(4.3)
	6	0		4	0		50	0
	7	3.9		5	4.9		51	0
	8	4.8		6	4.9		52	2.9
	9	0.5		7	0	IC302	1	0.9(1.6)
	10	4.8		8	4.9		2	0
	11	4.9	IC100	1	4.9		3	1.3
	12	0		2	4.9		4	0
	13	2.2		3	0		5	4.9(1.7)
	14	2.1	IC301	1	3.3		6	4.9
	15	4.9		2	5.0		7	1.1[0]
	16	4.9		3	5.5[6.3]<4.8>		8	0[0.6]
	17	0		4	5.0		9	0.6(0)
	18	4.9(0)		5	4.9		10	4.8(1.1)
	19	2.7[2.1]		6	4.32		11	0.1(4.9)
	20	2.7		7	1.8		12	1.4(4.9)
	21	4.9		8	3.7		13	0
	22	0		9	4.7		14	1.7[0]
	23	4.9		10	3.8		15	0
	24	0.6		11	5.0		16	1.7(0.9)
	25	4.9		12	0	IC502	1	0.9
	26	4.9		13	3.7		2	3.6
	27	4.8		14	2.4		3	1.7
	28	4.9		15	3.6		4	0
	29	0		16	3.5		5	2.9
	30	0		17	5.4		6	2.4
	31	0		18	7.7		7	6.9
	32	0		19	0.8		8	8.8
	33	4.9		20	3.6	IC503	1	1.6
	34	0		21	3.1		2	13.2
	35	0		22	3.9		3	13.4
	36	2.5		23	2.9<3.6>		4	14.7
	37	2.5		24	1.5		5	0.3
	38	4.8[5.0]		25	1.5		6	13.3
	39	4.9		26	1.5		7	1.6
	40	0[0.1]		27	0	IC601	1	1.9
	41	0.4		28	4.5		2	0.1
	42	0.9		29	4.5		3	288.5
	43	0[0.1]		30	4.5		4	17.0
	44	4.9		31	8.8		5	0
	45	4.9		32	4.1	IC602	1	122.4
	46	4.4		33	4.1		2	135.1
	47	4.9		34	3.6		3	0
	48	4.4		35	8.7	IC603	1	7.5[12.36]
	49	0		36	4.4		3	3.8
	50	2.7		37	4.5		4	17.0
	51	0.1		38	4.6	PH600	1	129.1
	52	4.7(0.1)		39	4.6		2	128.1
IC002	1	0		40	5.1		3	3.8
	2	4.9		41	5.1		4	17.0
	3	4.9		42	0	Q002	B	0
	4	7.2		43	5.0		C	4.9
	5	4.9		44	4.9		E	0

A(2/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
Q101	B C E	2.8 8.8 2.2	Q311	B C E	0 8.9 0	Q509	B C E	0.6 0.1 0
Q301	B C E	12.4 0 12.2	Q313	B C E	0 12.2 0	Q511	B C E	-0.1 123.1 122.9(0)
Q302	B C E	1.7 8.1 1.1	Q314	B C E	0.5 0 1.1	Q600	B C E	0 12.4 0
Q303	B C E	8.1 1.8 8.7	Q315	B C E	0 1.6 0	Q601	B C E	-0.8 -0.5 -0.7
Q304	B C E	3.6 0 4.3	Q316	B C E	0(4.0) 0 4.7	Q602	B C E	0 16. 0
Q305	B C E	0(8.1) 1.9(1.5) 8.7	Q501	B C E	3.5 0 4.0	Q603	B C E	16.9 0 17.0
Q306	B C E	1.7 8.1 1.1	Q502	B C E	4.2 2.4 4.0	Q604	B C E	133.9 0 133.9
Q307	B C E	4.3 8.7 3.7	Q503	B C E	0 3.6 0	Q605	D G S	391.8 112.7 112.4
Q308	B C E	3.5 0.5 0.8	Q505	D G S	16.4 6.9 0	Q606	B C E	113.2 113.2 112.3
Q309	B C E	4.8(0) 0(4.9) 0	Q506	B C E	-0.6 90.2 0	Q607	B C E	0.8 0.1 0
Q310	B C E	2.1(0)[0.2] 4.9 1.2(0)	Q507	B C E	12.7 0(0.4) 13.2	Q608	B C E	0 0.8 0

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B(1/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]
IC1401	1	3.9
	2	3.9
	3	3.9
	4	3.9
	5	3.9
	6	8.1
	7	3.9
	8	3.9
	9	3.9
	10	3.9
	11	3.9
	12	8.1
	13	3.9
	14	3.9
	15	3.9
	16	3.9
	17	3.9
	18	8.1
	19	4.4
	20	4.4
	21	0
	22	3.9
	23	3.8
	24	3.9
	25	3.8
	26	3.9
	27	3.8
	28	3.9
	29	3.8
	30	3.8
	31	3.9
	32	3.9
	33	3.8
	34	0
	35	3.8
	36	0
	37	3.8
	38	3.9
	39	3.9
	40	3.8
	41	3.8
	42	4.0
	43	3.7
	44	8.8
	45	3.8
	46	3.8
	47	3.8
	48	3.8
IC1402	1	4.8
	2	2.4
	3	2.4
	4	0
	5	2.4
	6	2.4
	7	4.9
	8	9.0
IC1403	I	7.4
	G	0
	O	8.8
IC1404	I	12.1
	G	0
	O	8.8
IC3200	1	4.4
	2	4.4
	3	4.4
	4	0
	5	4.4
	6	4.4
	7	4.4
	8	8.8
IC3201	1	0.1
	2	0.1
	3	8.8
	4	4.4
	5	4.4
	6	4.4
	7	4.4
	8	0
	9	4.4
	10	4.4
	11	4.4
	12	4.4
	13	4.4
	14	4.4
	15	4.4
	16	4.4
IC3202	1	4.4
	2	4.4
	3	4.3
	4	0
	5	4.3
	6	4.4
	7	4.4
	8	8.8
IC3203	1	4.4
	2	4.4
	3	4.4
	4	4.4
	5	8.7
	6	0.4
	7	0
	8	0.3
	9	0.3
	10	0.3
	11	0.3
	12	0.3
	13	8.7
	14	8.8
IC3204	1	4.4
	2	4.4
	3	4.2
	4	0
	5	4.3
	6	4.4
	7	4.4
	8	8.8
IC3205	1	0.1
	2	0.1
	3	8.7
	4	0.4
	5	0.4
	6	0.4
	7	0.4
	8	0
	9	2.2
	10	2.3
	11	0
	12	0
	13	8.8
	14	4.5
	15	4.4
	16	8.8
IC3206	1	0
	2	0
	3	0(0.1)
	4	4.4
	5	0(4.4)
	6	4.4
	7	4.4
	8	4.4
	9	4.4
	10	4.4
	11	4.4
	12	4.4
	13	0(1.6)
	14	2.0
	15	8.8
	16	0.1
	17	4.4
	18	4.4
	19	2.0
	20	1.6[0.1]
	21	4.4
	22	4.4
	23	4.4
	24	0(4.4)
	25	4.4
	26	4.4
	27	4.4
	28	4.4
	29	4.4
	30	4.4
	31	3.1
	32	4.4
IC6200	1	1.6
	2	0
	3	0
	4	0
	5	1.6
	6	9.8
	7	13.6
	8	5.0
	9	28.9
	10	0
	11	4.1
	12	13.2

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B(2/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]
Q1316	B	8.2	Q1402	B	3.8	Q3201	D	4.2
	C	4.9		C	0		G	39
	E	8.8		E	4.4		S	4.2
Q1317	B	4.9	Q1403	B	3.7	Q3203	B	4.0
	C	8.8		C	8.8		C	8.6
	E	4.3		E	3.1		E	3.5
Q1318	B	3.1	Q1404	B	3.8	Q3204	D	4.2
	C	6.9		C	8.8		G	3.9
	E	2.4		E	3.1		S	4.3
Q1323	B	4.9(2.7)	Q1405	B	3.9	Q6201	B	0
	C	8.8		C	5.6		C	4.1
	E	4.3(2.1)		E	3.2		E	0
Q1324	B	6.9	Q1406	B	3.9	Q6203	B	0
	C	8.8		C	5.6		C	0
	E	6.3		E	3.2		E	0
Q1365	B	3.1	Q1408	B	5.6	Q6204	B	0
	C	6.3		C	8.8		C	0
	E	2.4		E	5.0		E	0
Q1372	B	2.4	Q1409	B	2.4	Q6208	B	0
	C	8.8		C	5.6		C	9.7
	E	1.8		E	1.8		E	0
Q1401	B	3.8	Q1410	B	3.8			
	C	8.8		C	8.7			
	E	3.1		E	3.2			

P(2/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
Q4363	B	4.7	Q4502	B	8.1	Q4514	B	5.6
	C	0		C	2.0		C	8.8
	E	5.3		E	8.8		E	5.0
Q4364	B	4.2	Q4503	B	5.2	Q4515	B	2.4
	C	0		C	8.8		C	8.1
	E	4.9		E	4.5		E	1.8
Q4366	B	3.2	Q4505	B	2.2	Q4516	B	8.1
	C	3.4		C	8.1		C	3.2
	E	2.6		E	1.6		E	8.8
Q4368	B	2.6	Q4507	B	8.1	Q4520	B	3.2
	C	8.8		C	2.9		C	6.2
	E	0		E	8.8		E	2.5
Q4369	B	3.2	Q4509	B	3.0	Q4522	B	0
	C	6.2		C	6.4		C	6.8
	E	2.6		E	2.3		E	1.9
Q4371	B	2.6	Q4510	B	2.4	Q4523	B	1.9
	C	8.8		C	7.1		C	0
	E	1.9		E	1.7		E	2.6
Q4501	B	2.7	Q4511	B	1.7			
	C	8.1		C	0			
	E	2.0		E	2.4			

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P(1/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]
IC4301	1	0
	2	2.9
	3	2.4
	4	2.4
	5	5.0
	6	0
	7	0.3
	8	0
	9	0.4
	10	5.0
	11	2.0
	12	0
	13	0.1
	14	3.0
	15	0
	16	0
	17	4.9
	18	0.3
	19	5.0
	20	0.3
	21	4.5
	22	4.4
	23	0.8
	24	0.8
	25	1.0
	26	0
	27	0
	28	2.0
	29	5.0
	30	0.4
	31	4.0
	32	2.3
IC4302	1	3.1
	2	0
	3	1.7
	4	0
	5	1.5
	6	0
	7	0
	8	3.0
	9	3.0
	10	0.3
	11	3.0
	12	0
	13	5.0
	14	3.0
	15	0
	16	3.0
IC4303	1	3.3
	2	5.1
	3	2.6
	4	5.1
	5	4.7
	6	4.3
	7	0.5
	8	4.7
	9	5.1
	10	0
	11	3.4
	12	2.4
	13	3.4
	14	3.6
	15	5.4
	16	7.6
	17	1.0
	18	3.5
	19	0.5
	20	3.8
	21	0.4
	22	0.2
	23	0.2
	24	0.2
	25	7.4
	26	3.8
	27	3.8
	28	3.8
	29	0
	30	4.0
	31	4.0
	32	3.7
	33	8.7
	34	4.3
	35	4.4
	36	0
	37	3.7
	38	4.3
	39	4.3
	40	0
	41	5.0
	42	7.2
	43	5.0
	44	8.7
	45	4.3
	46	0
	47	0
	48	2.8
IC4502	1	0.4
	2	0.4
	3	0
	4	2.9
	5	2.9
	6	0
	7	0
	8	0
	9	0
	10	0
	11	0
	12	0
	13	0.2
	14	2.9
	15	0.4
	16	8.8
IC4503	1	0
	2	0.1
	3	2.6
	4	4.0
	5	4.0
	6	0
	7	0
	8	0
	9	0
	10	0
	11	0
	12	4.0
	13	2.4
	14	0
	15	0.2
	16	8.7
Q4300	B	5.4
	C	0
	E	6.1
Q4301	B	0.2
	C	3.4
	E	0
Q4302	B	4.7
	C	0.1
	E	5.0
Q4303	B	0.1
	C	4.9
	E	0
Q4304	B	3.4
	C	0.3
	E	0
Q4305	B	3.3
	C	0.3
	E	0
Q4306	B	0.2
	C	3.3
	E	0
Q4307	B	0
	C	4.9
	E	0
Q4308	B	4.8
	C	0
	E	5.0
Q4309	B	0.8
	C	0
	E	0
Q4310	B	0.8
	C	0
	E	0
Q4313	B	0.4
	C	0
	E	1.1
Q4314	B	0.7
	C	0
	E	1.3
Q4315	B	0.3
	C	0
	E	1.0
Q4327	B	0
	C	0
	E	0.6
Q4362	B	4.7
	C	0
	E	5.3

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C6 BOARD VOLTAGE LIST

Ref	Pin No	Voltage(V)
IC1800	1	4.8
	2	4.7
	3	5.6
	4	5.6
	5	0
	6	5.8
	7	5.8
	8	7.2
	9	7.2
	10	12.7
Q701	B	157.8[161.1]<152.1>
	C	202.5[202.3]
	E	158.3[161.3]<152.3>
Q702	B	158.8(160.9)[162.4]<153.2>
	C	202.6[202.4]
	E	158.6(160)[162.4]<152.7>
Q703	B	162.8(164)166.1]<155.8>
	C	202.4
	E	163.1[165.7]<155.9>
Q704	B	8.9[8.7]
	C	156.4(158.3)[160.3]<150.7>
	E	8.3[8.1]
Q705	B	8.9
	C	158.8(161)[162.4]<152.8>
	E	8.3
Q706	B	8.9(8.6)
	C	162.8[166.1]<155.7>
	E	8.3(8.1)
Q707	B	159.1[161.2]<152.5>
	C	3.9[4.7]<3.2>
	E	155.1[157.9]<148.6>
Q708	B	159.1(161)[162.5]<152.7>
	C	4.2(3.6)[3.4]<5.0>
	E	155.2(156.5)[158.2]<148.7>
Q709	B	162.6[165.7]<155.9>
	C	3.4[3.2]<4.6>
	E	158.5(160.1)[162.1]<151.8>
Q710	B	1.5<1.7>
	C	8.3
	E	1.2
Q711	B	1.6(1.5)
	C	8.3
	E	1.2(1.1)
Q712	B	1.5(1.4)
	C	8.3
	E	1.1
Q714	B	0.7(0.5)
	C	0.2(0)
	E	0<0.1>
Q1800	B	3.9
	C	0
	E	4.6
Q1802	B	0.5
	C	2.0
	E	0
Q1803	B	0
	C	4.9
	E	0
J701	KR	16.1[162.4]<152.5>
	KG	156[158.7]<149.3>
	KB	156[157.8]<149.8>
	HI	0

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VM1 BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]
Q5901	B	2.6	Q5906	B	0
	C	8.8		C	0.2
	E	2.0		E	0
Q5902	B	0.5	Q5907	B	0.8
	C	0.1		C	0
	E	0.5		E	0
Q5903	B	2.6	Q5908	B	4.3
	C	4.6		C	0
	E	2.0		E	0
Q5904	B	4.6	Q5909	B	0
	C	0		C	8.8
	E	5.0		E	4.3
Q5905	B	5.6			
	C	8.8			
	E	5.0			

H BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]
IC3901	1	4.9
	2	4.9
	3	0
Q3901	B	0.1
	C	4.9
	E	0.1
Q3902	B	4.7
	C	2.2
	E	1.8

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V1 BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC801	1	0.4		27	0	Q801	B	0
	2	4.9		28	0		C	4.9
	3	0.4		29	0.4		E	0
	4	0.4		30	2.0	Q803	B	0
	5	4.9		31	2.0		C	0
	6	4.9		32	0		E	0.6
	7	0		33	0	Q805	B	0.4
	8	0		34	0		C	0.9
	9	4.8		35	0		E	0
	10	0		36	0.9	Q806	B	0
	11	2.4		37	0.1		C	4.9
	12	2.3		38	4.9		E	0
	13	0		38	4.9	Q807	B	0
	14	4.9		39	4.9		C	4.9
	15	4.9		40	0		E	0
	16	0.2		41	2.3	Q808	B	0
	17	0.9		42	2.4		C	4.9
	18	0		43	0		E	0
	19	0		44	4.8	Q810	B	0.2
	20	0.5		45	0		C	4.0
	21	0.5		46	0		E	0
	22	0		47	4.9	Q811	B	5.5
	23	2.2		48	0		C	6.3
	24	0.5		49	4.4		E	4.9
	25	2.0		50	4.5	Q817	B	2.8
	26	2.4		51	0		C	0.1
				52	0		E	0

D3 BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]
IC2800	I	13.3	Q2801	B	0.3
	G	0		C	1.9
	O	9.1		E	0
IC2801	1	4.5	Q2802	B	13.3
	2	4.5		C	13.3
	3	4.5		E	13.3
	4	0	Q2803	B	12.7
	5	0.5		C	13.3
	6	0.5		E	13.3
	7	7.9	Q2804	B	2.1
	8	9.1		C	12.7
Q2800	B	0.3		E	1.5
	C	0.3			
	E	0			

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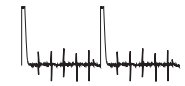
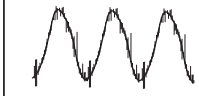
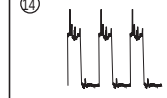
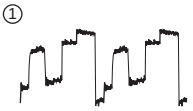
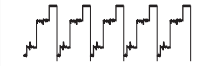
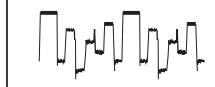
6-5 WAVEFORM

A BOARD WAVEFORMS

①  6.2Vp-p	② 9.0Vp-p	③  7.7Vp-p	④ 2.5Vp-p	⑤ 2.5Vp-p
⑥ 3.0Vp-p	⑦ 5.0Vp-p	⑧ 3.8Vp-p	⑨ 5.0Vp-p	⑩ 5.4Vp-p
⑪ 5.4Vp-p	⑫ 4.8Vp-p	⑬ 2.6Vp-p	⑭  4.2Vp-p	⑮ 37.6Vp-p
⑯ 3.3Vp-p				

C6 BOARD WAVEFORMS

①  3.0Vp-p	② 106Vp-p	③ PAL  110Vp-p	③ NTSC  130Vp-p	④ 23.6Vp-p

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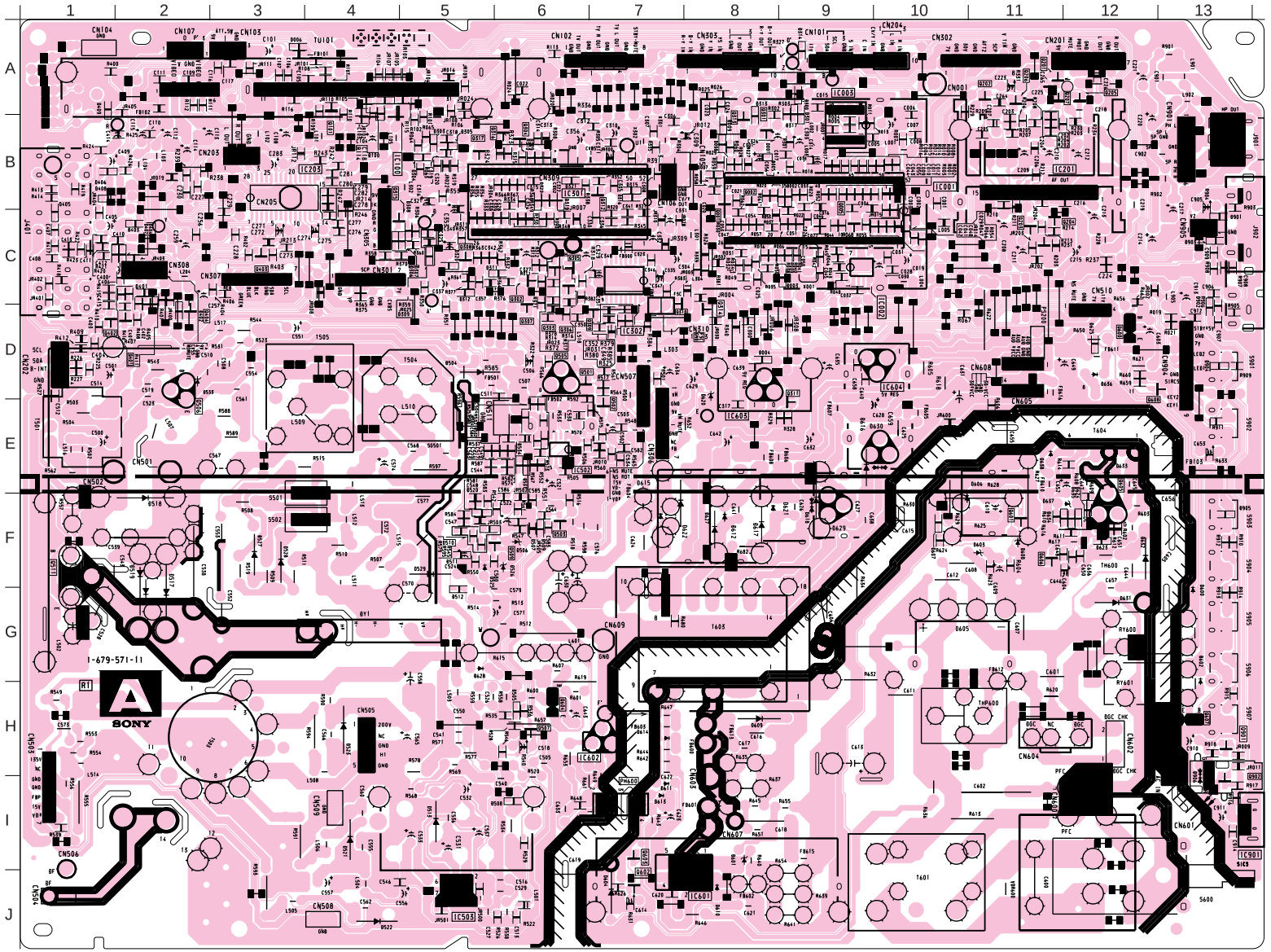
6-6. PRINTED WIRING BOARDS AND PARTS LOCATION

PRINTED WIRING BOARDS

A [SYSTEM CONTROLLER, Y/C JUNGLE, DEFLECTION, TUVIF, FRONT AMP, POWER SUPPLY]

– A Board –



A BOARD

IC		Q606	F-11	D531	E-6
		Q607	H-13	D533	D-2
IC001	B-10	Q608	D-12	D534	E-6
IC002	D-10	Q901	H-13	D600	G-13
IC003	A-9	Q902	H-13	D601	I-8
IC100	B-4	**DIODE**		D602	G-13
IC201	B-12			D603	F-11
IC203	B-4	D001	B-8	D604	J-7
IC301	B-6	D003	C-9	D605	G-10
IC302	D-7	D004	D-8	D606	E-11
IC502	E-6	D005	B-8	D607	F-10
IC503	J-5	D006	A-3	D608	F-11
IC601	J-8	D007	B-8	D609	H-8
IC602	H-7	D008	B-8	D610	J-8
IC603	E-8	D009	B-8	D611	I-7
IC604	D-10	D100	B-4	D612	F-8
IC901	I-13	D203	C-11	D613	I-7
TRANSISTOR		D300	A-9	D616	E-9
		D301	B-9	D617	F-8
Q001	C-8	D303	B-5	D618	F-9
Q002	B-8	D304	B-5	D620	D-8
Q005	B-9	D305	B-5	D621	F-9
Q101	B-4	D306	C-5	D622	F-8
Q201	A-11	D307	C-5	D623	F-12
Q202	A-11	D308	B-5	D624	F-12
Q203	C-11	D309	D-5	D625	D-12
Q204	C-11	D312	C-5	D627	F-8
Q205	A-12	D313	A-8	D628	G-5
Q206	A-11	D314	A-9	D629	F-9
Q207	A-12	D315	B-7	D630	E-10
Q301	A-8	D317	B-9	D631	G-10
Q302	C-6	D319	B-6	D632	F-12
Q303	D-6	D320	C-5	D633	E-12
Q304	B-6	D321	B-6	D634	F-11
Q305	C-6	D322	B-6	D635	F-12
Q306	D-6	D401	C-2	D636	D-12
Q307	D-6	D402	D-2	D637	F-11
Q308	C-5	D403	C-2	D638	E-11
Q309	D-7	D404	C-2	D651	E-7
Q310	D-7	D405	B-1	D901	C-13
Q311	D-9	D406	B-1	D902	C-13
Q312	B-7	D407	C-2	D903	C-13
Q313	B-8	D408	B-1	D904	C-13
Q314	D-8	D409	A-1	D905	F-13
Q315	B-4	D504	D-5	D906	H-13
Q316	B-5	D505	H-6		
Q317	B-5	D506	F-6		
Q401	D-2	D507	F-6		
Q402	D-1	D508	I7		
Q403	C-3	D509	F-6		
Q404	D-2	D510	F-5		
Q501	D-6	D511	F-5		
Q502	E-7	D512	G-5		
Q503	F-6	D513	I-5		
Q505	D-6	D517	F-2		
Q506	E-2	D518	F-2		
Q507	H-6	D519	F-2		
Q509	F-6	D520	E-5		
Q511	F-1	D521	I-4		
Q600	D-12	D522	J-4		
Q601	F-11	D523	H-4		
Q602	I-7	D525	F-5		
Q603	I-7	D526	F-6		
Q604	H-6	D527	F-3		
Q605	E-12	D528	F-3		
		D529	F-5		

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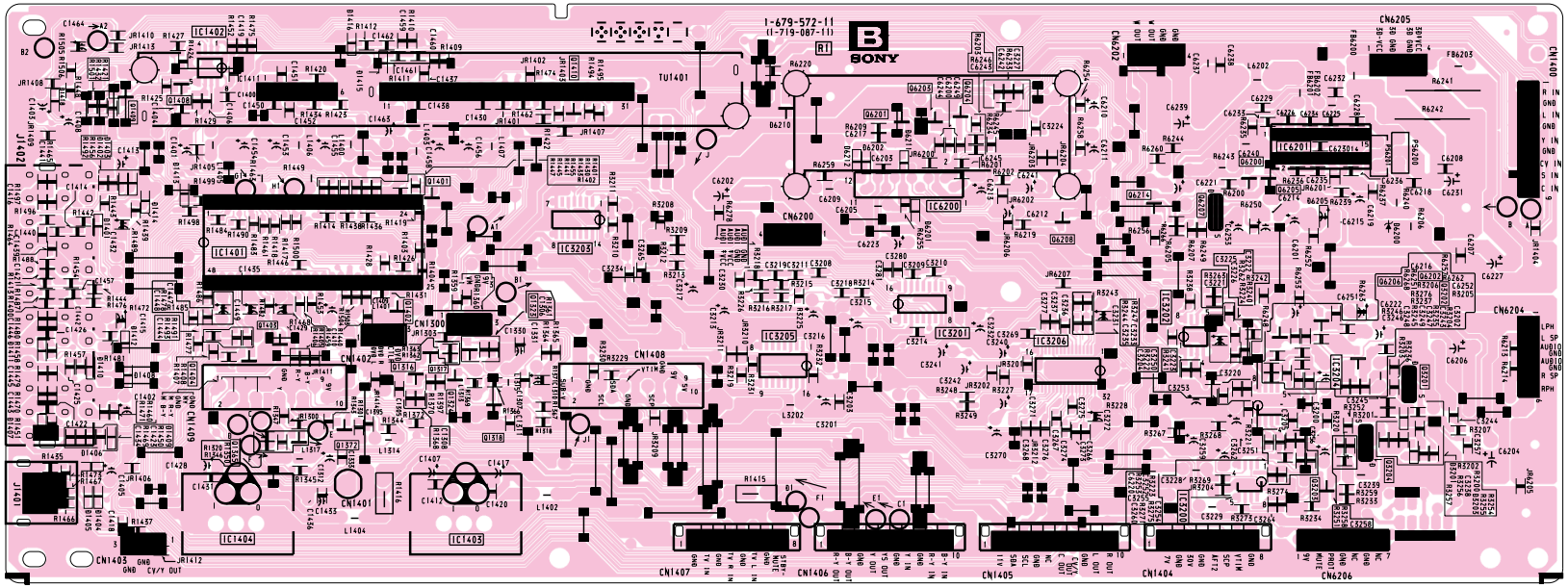
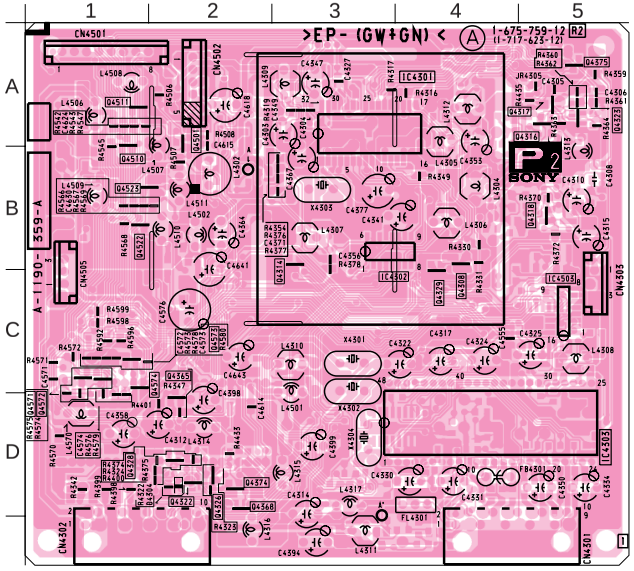
B [AUDIO PROCESSOR, AUDIO AMP, SUB TUNER, AV IN/OUT, VM DRIVER]

P2 [PICTURE IN PICTURE, DVD]

– B Board –



– P2 Board – (Componet Side)



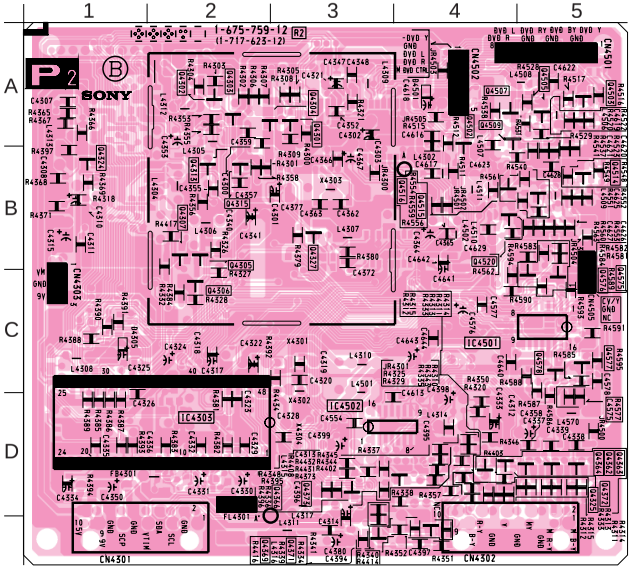
P2 A BOARD

IC		Q4522	B-1
		Q4523	B-1
IC4301	A-4	Q4571	D-1
IC4302	C-3	Q4572	D-1
IC4303	D-5	Q4573	C-2
IC4503	C-5	Q4574	C-2
TRANSISTOR		DIODE	
Q4308	C-4	D4304	D-1
Q4314	C-3		
Q4316	A-5		
Q4317	A-5		
Q4318	B-5		
Q4322	D-2		
Q4323	A-5		
Q4326	D-2		
Q4328	D-1		
Q4329	C-4		
Q4365	C-2		
Q4368	D-2		
Q4374	D-2		
Q4375	A-5		
Q4501	A-2		
Q4510	B-1		
Q4511	A-1		

P2 B BOARD

IC		Q4372	D-5
		Q4373	D-3
IC4303	D-2	Q4502	A-4
IC4501	C-1	Q4503	A-5
IC4502	D-3	Q4505	A-5
TRANSISTOR		Q4507	A-4
		Q4509	A-4
Q4301	A-3	Q4514	B-5
Q4302	A-2	Q4515	B-4
Q4303	A-2	Q4516	B-4
Q4304	A-3	Q4520	B-4
Q4305	B-2	Q4575	C-5
Q4306	C-2	Q4576	C-5
Q4307	B-2	Q4577	C-5
Q4313	B-2	Q4578	C-5
Q4315	B-2	DIODE	
Q4324	B-1		
Q4325	D-5	D4305	C-1
Q4327	B-3	D4501	A-4
Q4362	D-5		
Q4363	D-5		
Q4364	D-5		
Q4366	D-3		
Q4369	E-2		
Q4371	E-2		

– P2 Board – (Conductor Side)



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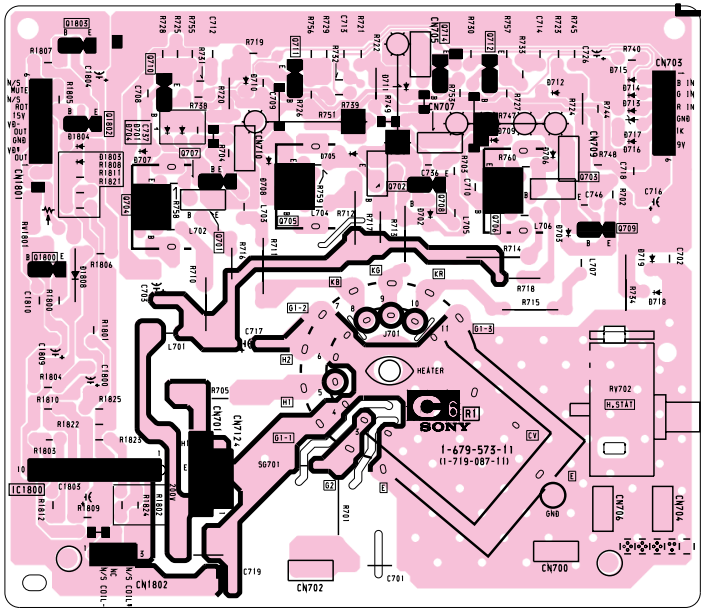
PRINTED WIRING BOARDS

C6 [VIDEO AMP, ROTATION CIRCUIT, RGB OUT]

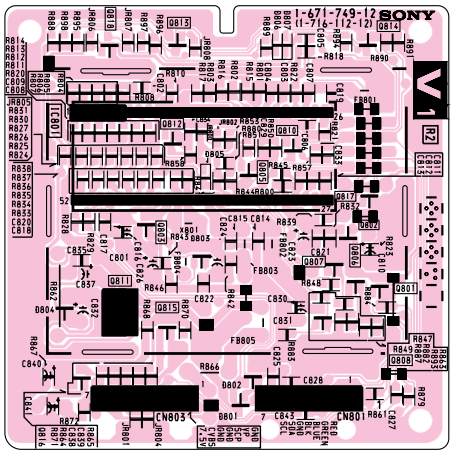
H [FRONT AV IN, SENSOR, POWER SW]

V2 [TELETEXT]

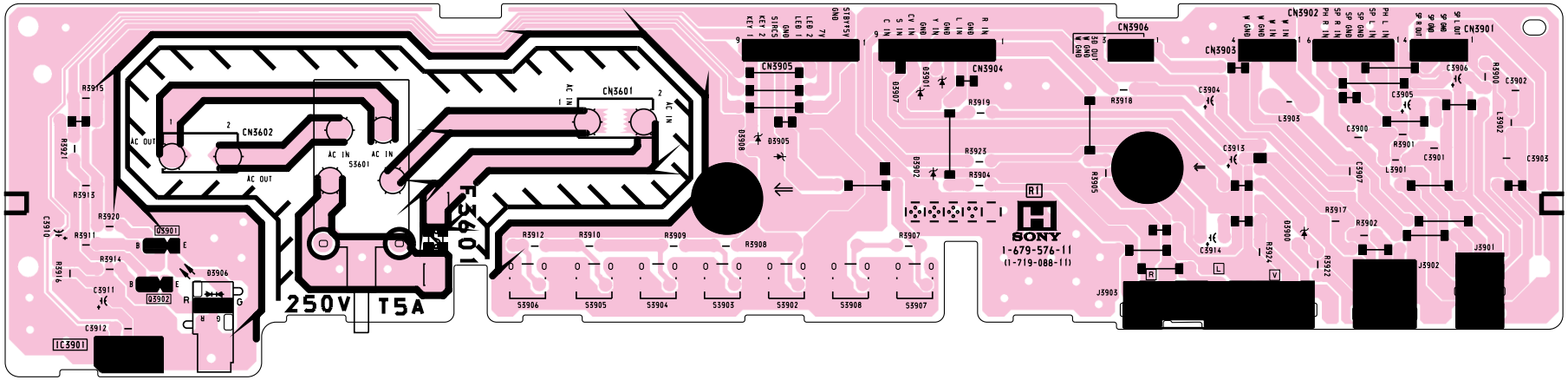
– C6 Board –



– V1 Board –



– H Board –



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PRINTED WIRING BOARDS

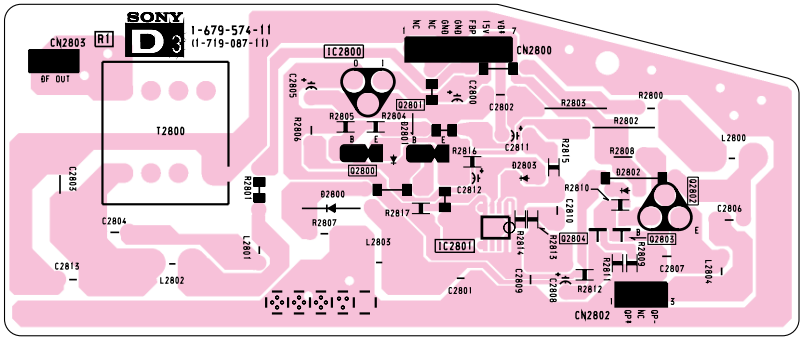
D3 [DQP, DYNAMIC FOCUS]

F [CISPR]

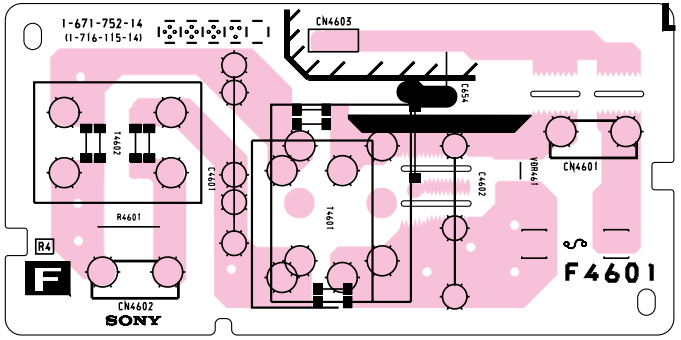
J [DVD, 3D TERMINAL]

VM1 [VELOCITY MODULATION]

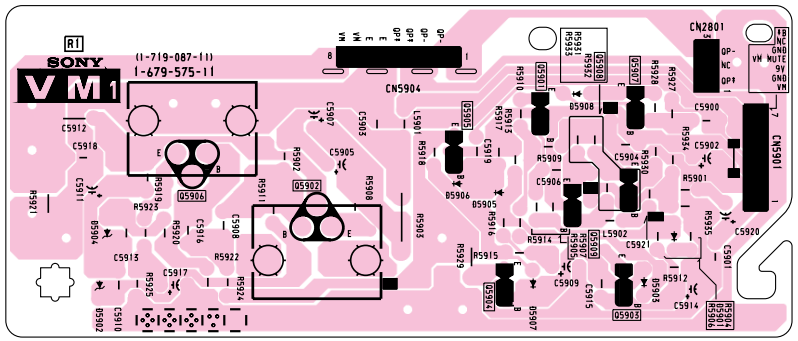
– D3 Board –



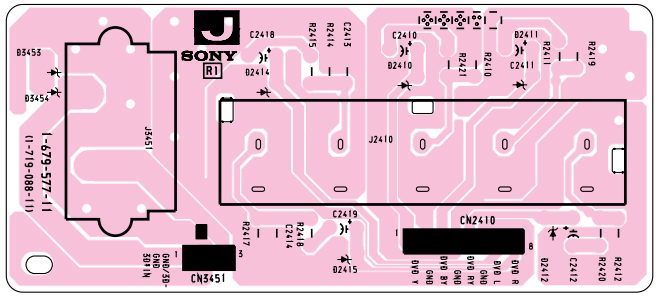
– F Board –



– VM1 Board –

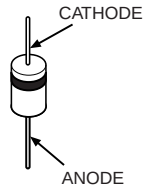
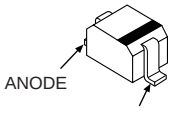
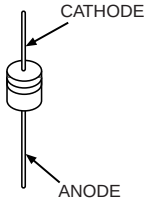
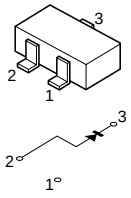
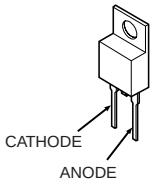


– J Board –



6-7 SEMICONDUCTORS

DIODE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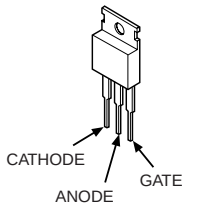
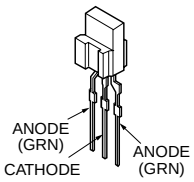
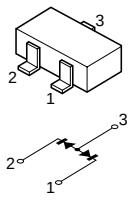
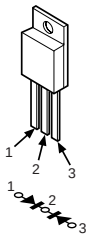
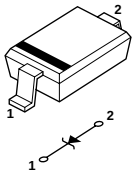
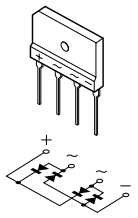
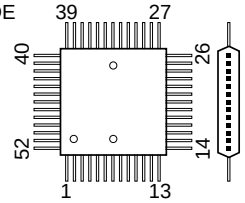
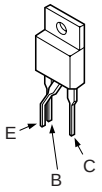
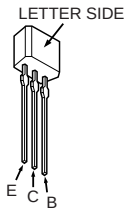
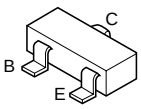
					
TF541M 5P-6M	SPB-26MVWF	DAP202K	FMX-12S	RD15SB2	D3SB60 D4SB60L LN4SB60

TRANSISTOR

MARKING SIDE VIEW 				
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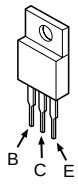	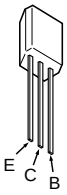	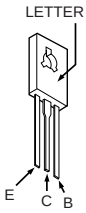	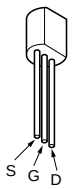	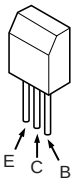	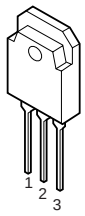
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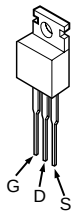
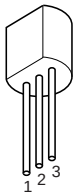
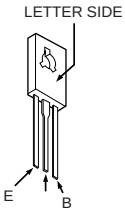
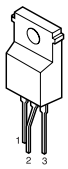
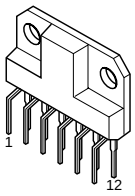
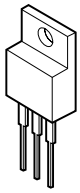
IC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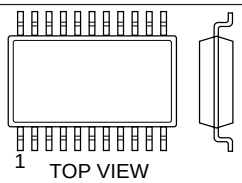
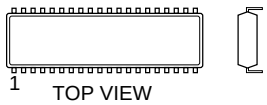
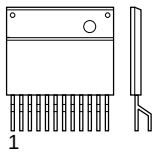
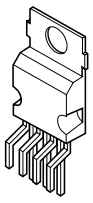
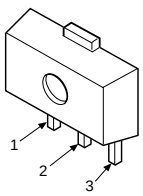
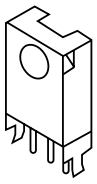
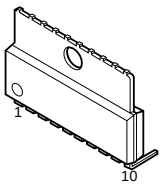
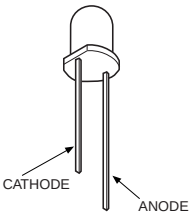
SOP  Small Outline L-Leaded Pin 8～98		DIP  Dual In-line Package Pin 6～98		MARKING SIDE VIEW  Zig-zag In -line Package Pin 6～99	
BA7606F-E2 BH3868FS-E2 BH3868AFS-E2 CXA1315M HEF4053BT LM358D	MM1319AFBE NJUM4066BM NJM2903M SDA9288XE-B0121 UPC4588G2	CXA1855S CXA2139S CXP750097-032 M24C08-BN6	SAA5261 ST24C08FB6 TDA9181T	STR-F6656	

					
TDA8172	S-80743AL-A7-S	SBX3081-(01)30	LA6510	NJM78M09FA	

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SECTION 7
EXPLODED VIEWS

NOTE:

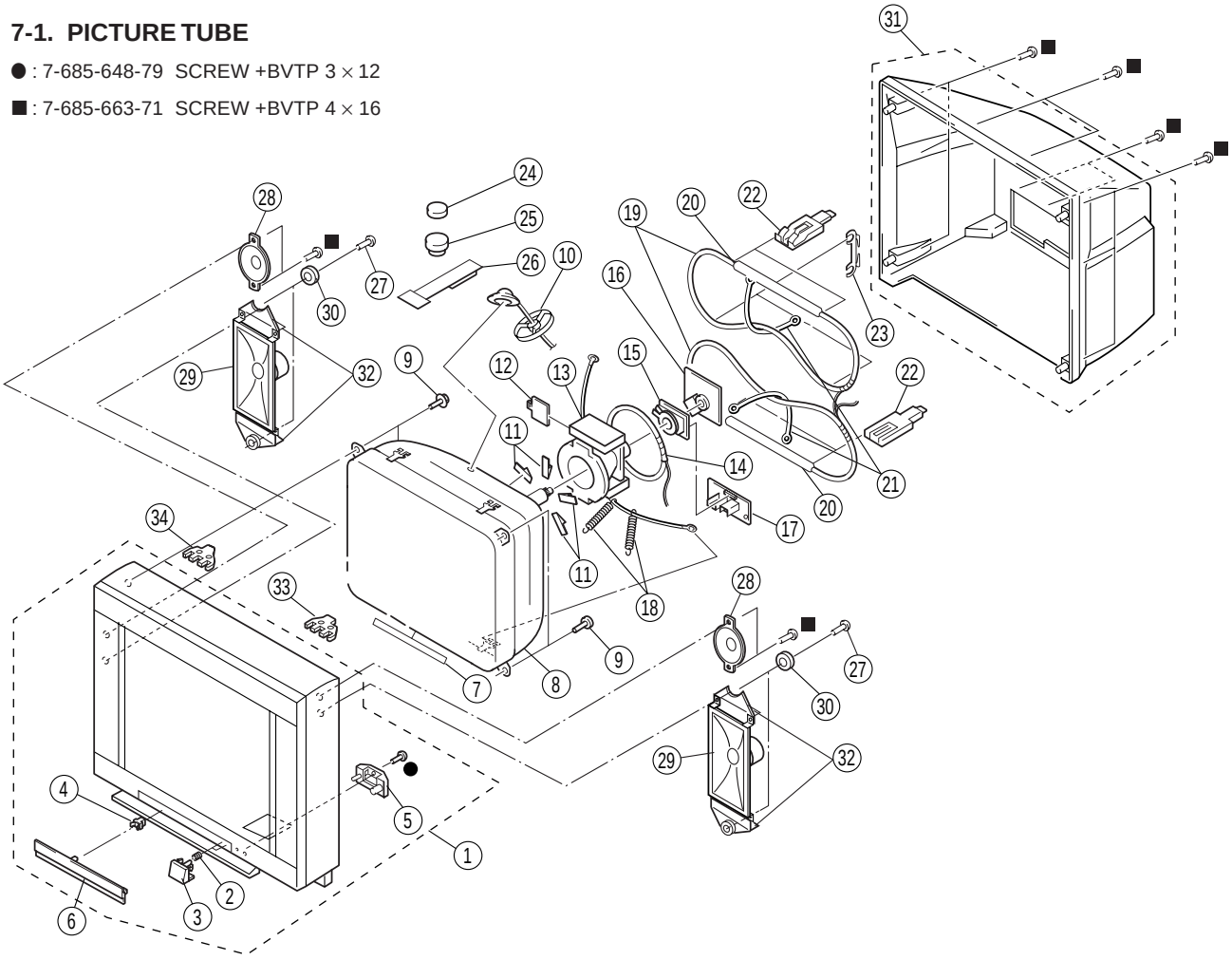
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

7-1. PICTURE TUBE

● : 7-685-648-79 SCREW +BVTP 3 × 12

■ : 7-685-663-71 SCREW +BVTP 4 × 16



REF. NO.		PART NO.	DESCRIPTION	REMARK
1		X-4038-232-1	BEZNET ASSY	2 ~ 6
2		4-036-405-11	SPRING, COMPRESSION	
3		4-075-747-11	BUTTON, POWER	
4		4-047-464-01	CATCHER, PUSH	
5	*	4-075-749-01	GUIDE, LIGHT	
6		4-078-944-01	CONTROL, DOOR	
7		4-072-569-21	SHEET, BLOTTING	
8	⚠	8-735-056-05	PICTURE TUBE (M68LNH070X)	
9		4-046-765-01	SCREW, TAPPING 7 + CROWN WASHER	
10	*	3-704-372-11	HOLER, HV CABLE	
11		4-072-365-01	SPACER, DY	
12		4-077-228-01	PIECE, TLH CONVERGENCE	
13	⚠	8-451-494-31	DEFLECTION YOKE (Y29RSA-S)	
14		1-452-896-11	COIL, NA ROTATION (RT200)	
15		8-453-011-11	NA299-M	
16	*	A-1332-110-A	C6 BOARD MOUNTED	
17	*	A-1342-580-A	VM1 BOARD MOUNTED	

REF. NO.		PART NO.	DESCRIPTION	REMARK
18		4-369-318-61	SPRING, TENSION	
19	⚠	1-419-294-11	COIL, DEGAUSSING	
20		4-063-935-11	CUSHION (50 x 550), DGC	
21		4-068-028-32	BAND, DGC	
22	*	4-062-970-12	CLIP (29RSN), DGC	
23		4-064-883-03	HOLDER, DGC	
24		1-452-032-00	MAGNET, DISC	
25		1-452-014-11	CIRCULAR DISC MAGNET B	
26		X-4387-214-3	PERMALOY ASSY, CORRECTION	
27		4-302-404-03	SCREW (WASHER HEAD) (+P 4 x 16)	
28		1-529-190-11	SPEAKER (5 CM)	
29		1-529-563-11	SPEAKER (15 x 6.5 CM)	
30		4-374-745-21	CUSHION A	
31		X-4038-161-1	REAR COVER ASSY (■ 12)	
32	*	4-046-981-01	BRACKET, SPEAKER	
33	*	x-4038-460-1	CRT (TOP,RIGHT) SUPPORT ASSY (■ 2)	
34	*	x-4038-461-1	CRT (TOP,LEFT) SUPPORT ASSY (■ 2)	

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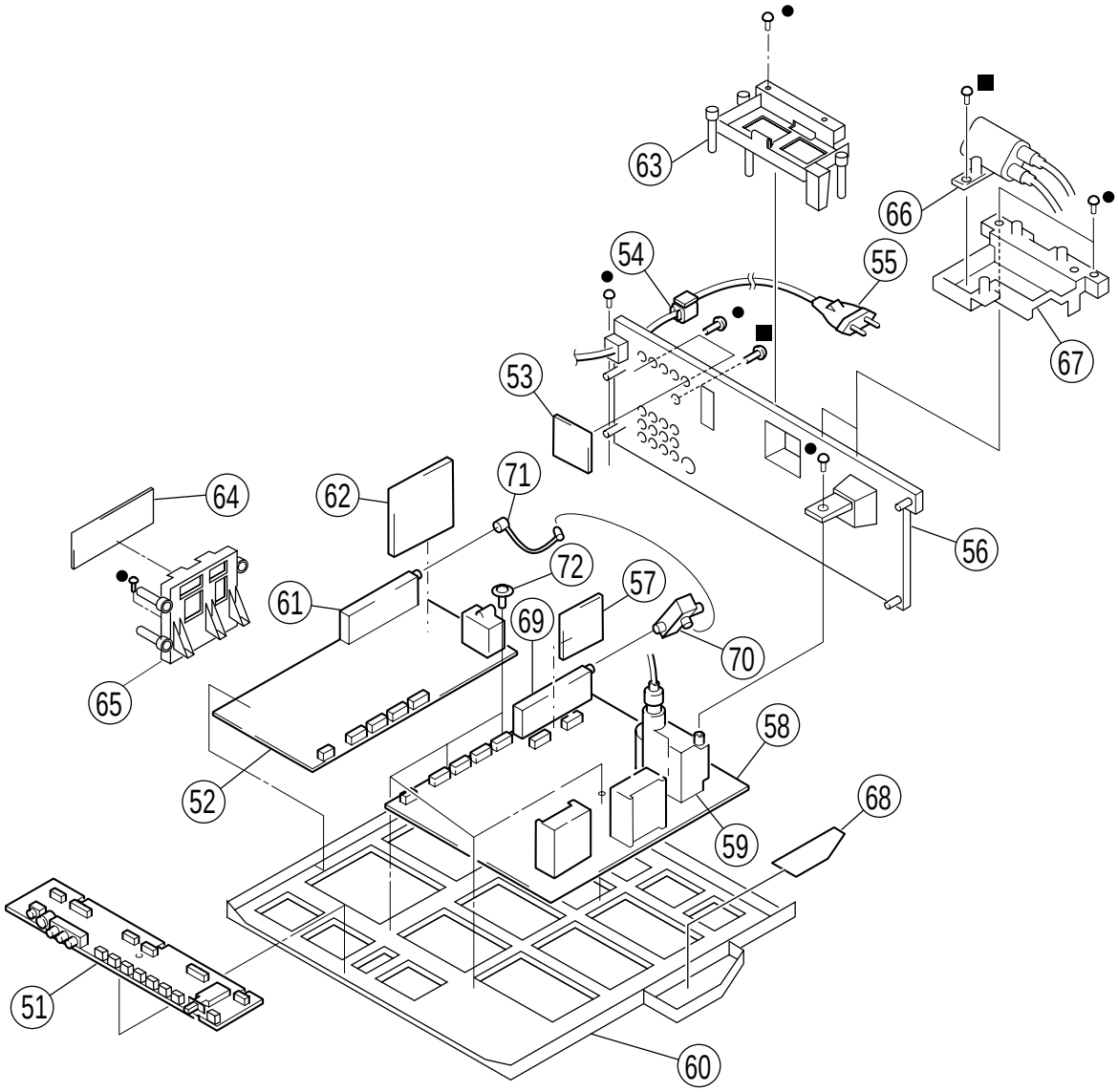
7-2. CHASSIS

●: 7-685-648-79 SCREW +BVTP 3 × 12
■: 7-685-663-71 SCREW +BVTP 4 × 16



REF. NO.		PART NO.	DESCRIPTION	REMARK
51	*	A-1372-887-A	H BOARD MOUNTED	
52	*	A-1136-140-A	B BOARD MOUNTED	
53	*	A-1388-288-A	J BOARD MOUNTED	
54	⚠	4-022-115-00	HOLDER, AC CORD	
55	⚠	1-574-062-11	CORD, POWER (WITH CONNECTOR)	
56	*	4-075-447-11	BRACKET, TERMINAL (■ 1)	
57	*	A-1347-164-A	V1 BOARD COMPLETE	
58	*	A-1299-331-A	A BOARD COMPLETE	
59	⚠	1-453-305-11	TRANSFORMER ASSY, FLYBACK (NX-4009//C6P4)	
60	*	4-066-681-04	BRACKET, MAIN (6 SCREWS ((3 x 12), (+) BVTAP)	
61		8-598-508-10	TUNER, FSS BTF-LG436	
62	*	A-1190-376-A	P2 BOARD MOUNTED	

REF. NO.		PART NO.	DESCRIPTION	REMARK
63	*	4-066-683-11	HOLDER, PWB	
64	*	A-1241-443-A	F BOARD MOUNTED	
65	*	4-066-682-01	BRACKET, F PWB	
66	⚠	1-467-525-31	CAP BLOCK, HIGH-VOLTAGE	
67		4-066-680-02	BRACKET, HVC	
68	*	A-1343-946-A	D3 BOARD MOUNTED	
69		8-598-452-20	TUNER, FSS BTF-WG442	
70		1-251-658-21	SPLITTER RF	
71	*	1-534-630-31	P-P CABLE	
72		4-046-797-01	SCREW (3 x 12), (+) BVTAP	

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SECTION 10
ELECTRICAL PARTS LIST

A

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All resistors are in ohms
- F : nonflammable

CAPACITORS
- MF : µF, PF : µµF

COILS
- MMH : mH, UH : µH

REF. NO.	PART NO.	DESCRIPTION		REMARK
*	A-1299-331-A	A BOARD COMPLETE		
		**********		
	4-382-854-11	SCREW (M3X10), P, SW (+)		
	4-382-854-21	SCREW (M3X14), P, SW (+)		
		<CAPACITOR>		
C004	1-163-001-11	CERAMIC CHIP	220PF 10.00% 50V	
C005	1-163-001-11	CERAMIC CHIP	220PF 10.00% 50V	
C006	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C007	1-104-664-11	ELECT	47UF 20.00% 16V	
C013	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V	
C014	1-104-664-11	ELECT	47UF 20.00% 25V	
C015	1-163-009-11	CERAMIC CHIP	0.001UF 10.00% 50V	
C016	1-163-243-11	CERAMIC CHIP	47PF 5.00% 50V	
C017	1-163-113-00	CERAMIC CHIP	68PF 5.00% 50V	
C019	1-104-664-11	ELECT	47UF 20.00% 25V	
C022	1-163-227-11	CERAMIC CHIP	10PF 0.50PF 50V	
C023	1-163-227-11	CERAMIC CHIP	10PF 0.50PF 50V	
C024	1-163-227-11	CERAMIC CHIP	10PF 0.50PF 50V	
C026	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C027	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C028	1-163-037-11	CERAMIC CHIP	0.022UF 10.00% 50V	
C030	1-126-965-11	ELECT	22UF 20.00% 50V	
C031	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C032	1-107-823-11	CERAMIC CHIP	0.47UF 10.00% 16V	
C041	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C042	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C043	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C044	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C047	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C048	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C050	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C051	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C053	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	
C103	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C104	1-104-665-11	ELECT	100UF 20.00% 10V	
C107	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V	
C108	1-104-664-11	ELECT	47UF 20.00% 16V	
C109	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V	
C110	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V	
C111	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V	
C112	1-104-664-11	ELECT	47UF 20.00% 16V	
C113	1-104-664-11	ELECT	47UF 20.00% 25V	
C114	1-126-967-11	ELECT	47UF 20.00% 50V	
C115	1-126-967-11	ELECT	47UF 20.00% 50V	
C116	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C117	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C118	1-110-501-11	CERAMIC CHIP	0.33UF 10.00% 16V	
C300	1-164-505-11	CERAMIC CHIP	2.2UF 16V	
C301	1-126-935-11	ELECT	470UF 20.00% 16V	
C302	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V	
C303	1-126-959-11	ELECT	0.47UF 20.00% 50V	
C304	1-126-967-11	ELECT	47UF 20.00% 50V	
C305	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C306	1-163-233-11	CERAMIC CHIP	18PF 5.00% 50V	
C307	1-163-233-11	CERAMIC CHIP	18PF 5.00% 50V	
C308	1-163-259-91	CERAMIC CHIP	220PF 5.00% 50V	
C309	1-126-957-11	ELECT	0.22UF 20.00% 50V	
C311	1-126-963-11	ELECT	4.7UF 20.00% 50V	
C312	1-164-346-11	CERAMIC CHIP	1UF 16V	
C313	1-164-346-11	CERAMIC CHIP	1UF 16V	
C314	1-164-346-11	CERAMIC CHIP	1UF 16V	
C315	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C316	1-126-934-11	ELECT	220UF 20.00% 16V	
C317	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C318	1-163-031-11	CERAMIC CHIP	0.01UF 50V	
C319	1-163-031-11	CERAMIC CHIP	0.01UF 50V	
C320	1-163-031-11	CERAMIC CHIP	0.01UF 50V	
C321	1-164-489-11	CERAMIC CHIP	0.22UF 10.00% 16V	
C322	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V	
C324	1-163-017-00	CERAMIC CHIP	0.0047UF 10.00% 50V	
C325	1-126-960-11	ELECT	1UF 20.00% 50V	
C327	1-126-965-11	ELECT	22UF 20.00% 50V	
C328	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C329	1-126-963-11	ELECT	4.7UF 20.00% 50V	
C330	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C331	1-126-963-11	ELECT	4.7UF 20.00% 50V	
C332	1-126-963-11	ELECT	4.7UF 20.00% 50V	
C335	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C336	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C337	1-126-961-11	ELECT	2.2UF 20.00% 50V	
C341	1-115-340-11	CERAMIC CHIP	0.22UF 10.00% 25V	
C342	1-163-259-91	CERAMIC CHIP	220PF 5.00% 50V	
C347	1-126-933-11	ELECT	100UF 20.00% 16V	
C348	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C349	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C350	1-163-031-11	CERAMIC CHIP	0.01UF 50V	
C351	1-126-964-11	ELECT	10UF 20.00% 50V	
C352	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C353	1-126-960-11	ELECT	1UF 20.00% 50V	
C356	1-104-664-11	ELECT	47UF 20.00% 16V	
C357	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	
C502	1-163-145-00	CERAMIC CHIP	0.0015UF 5.00% 50V	

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF. NO.		PART NO.	DESCRIPTION		REMARK
C503		1-126-964-11	ELECT	10UF	20.00% 50V
C506		1-107-638-11	ELECT	33UF	20.00% 160V
C507		1-161-830-00	CERAMIC	0.0047UF	500V
C510		1-102-112-00	CERAMIC	330PF	10.00% 50V
C512		1-163-989-11	CERAMIC CHIP	0.033UF	10.00% 25V
C513		1-163-263-11	CERAMIC CHIP	330PF	5.00% 50V
C514		1-106-383-00	MYLAR	0.047UF	10.00% 200V
C517		1-164-182-11	CERAMIC CHIP	0.0033UF	10.00% 50V
C518		1-104-665-11	ELECT	100UF	20.00% 10V
C519		1-102-212-00	CERAMIC	820PF	10.00% 500V
C521		1-126-934-11	ELECT	220UF	20.00% 16V
C522		1-126-933-11	ELECT	100UF	20.00% 16V
C523		1-102-002-00	CERAMIC	680PF	10.00% 500V
C524		1-126-967-11	ELECT	47UF	20.00% 50V
C526		1-130-495-00	MYLAR	0.1UF	5.00% 50V
C527		1-102-820-00	CERAMIC	330PF	5.00% 50V
C528		1-162-116-00	CERAMIC	680PF	10.00% 2KV
C530		1-137-372-11	MYLAR	0.022UF	5.00% 50V
C531		1-107-903-11	ELECT	2.2UF	20.00% 50V
C532		1-126-941-11	ELECT	470UF	20.00% 25V
C533		1-126-941-11	ELECT	470UF	20.00% 25V
C536		1-130-495-00	MYLAR	0.1UF	5.00% 50V
C537		1-126-969-11	ELECT	220UF	20.00% 50V
C538		1-127-717-11	CAP, METALIZED PP FILM 19000PF		
C539		1-129-723-00	FILM	0.056UF	5.00% 630V
C540		1-136-171-00	FILM	0.33UF	5.00% 50V
C546		1-165-319-11	CERAMIC CHIP	0.1UF	50V
C549		1-163-017-00	CERAMIC CHIP	0.0047UF	10.00% 50V
C550		1-106-220-00	MYLAR	0.1UF	10.00% 100V
C551		1-126-960-11	ELECT	1UF	20.00% 50V
C552		1-162-116-00	CERAMIC	680PF	10.00% 2KV
C553		1-162-116-00	CERAMIC	680PF	10.00% 2KV
C554		1-137-417-11	MYLAR	0.0047UF	10.00% 200V
C556		1-126-941-11	ELECT	470UF	20.00% 25V
C557		1-126-941-11	ELECT	470UF	20.00% 25V
C558		1-123-024-21	ELECT	33UF	160V
C560		1-102-228-00	CERAMIC	470PF	10.00% 500V
C561		1-129-898-00	FILM	0.0022UF	5.00% 630V
C562		1-102-228-00	CERAMIC	470PF	10.00% 500V
C563		1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C564		1-163-038-11	CERAMIC CHIP	0.1UF	25V
C565		1-107-655-11	ELECT	47UF	20.00% 250V
C566		1-102-244-00	CERAMIC	220PF	10.00% 500V
C567		1-115-520-11	FILM	0.68UF	5.00% 250V
C568		1-102-228-00	CERAMIC	470PF	10.00% 500V
C570		1-115-522-11	FILM	1UF	5.00% 250V
C572		1-117-661-21	FILM	0.15UF	5.00% 250V
C573		1-106-387-00	MYLAR	0.068UF	10.00% 200V
C574		1-104-709-11	ELECT	4.7UF	160V
C576		1-130-495-00	MYLAR	0.1UF	5.00% 50V
C577		1-106-395-00	MYLAR	0.15UF	10.00% 200V
C582		1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C584		1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V
C586		1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V
C600	⚠	1-104-705-11	MYLAR	0.1UF	20.00% 250V
C601		1-129-720-00	FILM	0.033UF	5.00% 630V
C602	⚠	1-104-705-11	MYLAR	0.1UF	20.00% 250V
C603		1-104-664-11	ELECT	47UF	20.00% 25V

REF. NO.		PART NO.	DESCRIPTION		REMARK
C604		1-163-009-11	CERAMIC CHIP	0.001UF	10.00% 50V
C605	⚠	1-119-886-51	CERAMIC	470PF	10.00% 250V
C606	⚠	1-119-886-51	CERAMIC	470PF	10.00% 250V
C607		1-161-830-00	CERAMIC	0.0047UF	99% 500V
C608		1-161-830-00	CERAMIC	0.0047UF	99% 500V
C609		1-126-968-11	ELECT	100UF	20.00% 50V
C610		1-126-964-11	ELECT	10UF	20.00% 50V
C611		1-161-830-00	CERAMIC	0.0047UF	99% 500V
C612		1-161-830-00	CERAMIC	0.0047UF	99% 500V
C613		1-125-906-11	ELECT	560UF	20.00% 450V
C614		1-126-964-11	ELECT	10UF	20.00% 50V
C615	⚠	1-119-886-51	CERAMIC	470PF	10.00% 250V
C616		1-130-202-00	FILM	0.022UF	5.00% 400V
C617		1-107-792-11	CERAMIC	100PF	5.00% 1KV
C618		1-125-893-11	FILM	680PF	3.00% 1.5KV
C619	⚠	1-119-886-51	CERAMIC	470PF	10.00% 250V
C620		1-163-133-00	CERAMIC CHIP	470PF	5.00% 50V
C621		1-102-114-00	CERAMIC	470PF	10.00% 50V
C622		1-102-119-00	CERAMIC	0.0015UF	10.00% 50V
C623		1-104-665-11	ELECT	100UF	20.00% 25V
C624		1-104-331-11	CERAMIC	0.0022UF	10.00% 1KV
C626		1-102-002-00	CERAMIC	680PF	10.00% 500V
C629		1-126-964-11	ELECT	10UF	20.00% 50V
C630		1-124-347-51	ELECT	100UF	20.00% 160V
C631		1-128-550-11	ELECT	2200UF	20.00% 50V
C632		1-126-936-11	ELECT	3300UF	20.00% 16V
C633		1-104-999-11	MYLAR	0.1UF	10.00% 200V
C634		1-126-933-11	ELECT	100UF	20.00% 16V
C635		1-104-665-11	ELECT	100UF	20.00% 10V
C636		1-104-760-11	CERAMIC CHIP	0.047UF	10.00% 50V
C638		1-161-830-00	CERAMIC	0.0047UF	500V
C641		1-102-002-00	CERAMIC	680PF	10.00% 500V
C642		1-126-943-11	ELECT	2200UF	20.00% 25V
C643		1-104-665-11	ELECT	100UF	20.00% 10V
C644		1-104-331-11	CERAMIC	0.0022UF	10.00% 1KV
C645		1-137-605-11	MYLAR	0.01UF	10.00% 250V
C646		1-107-679-91	ELECT	10UF	20.00% 450V
C647		1-163-275-11	CERAMIC CHIP	0.001UF	5.00% 50V
C649		1-126-940-11	ELECT	330UF	20.00% 25V
C650		1-163-275-11	CERAMIC CHIP	0.001UF	5.00% 50V
C651		1-163-133-00	CERAMIC CHIP	470PF	5.00% 50V
C652		1-126-965-11	ELECT	22UF	20.00% 50V
C653		1-104-664-11	ELECT	47UF	20.00% 25V
C655	⚠	1-119-886-51	CERAMIC	470PF	10.00% 250V
C657		1-101-821-00	CERAMIC	0.0022UF	500V
C659		1-162-116-00	CERAMIC	680PF	10.00% 2KV
C912		1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C913		1-104-665-11	ELECT	100UF	20.00% 10V

<CONNECTOR>

CN101	*	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
CN102	*	1-779-889-11	CONNECTOR, BOARD TO BOARD 8P
CN104		1-695-915-11	TAB (CONTACT)
CN105		1-695-915-11	TAB (CONTACT)
CN106	*	1-564-506-11	PLUG, CONNECTOR 3P

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REF. NO.		PART NO.	DESCRIPTION	REMARK
CN201	*	1-564-508-11	PLUG, CONNECTOR 5P	
CN202	*	1-508-847-00	PIN, CONNECTOR 4P	
CN301	*	1-774-813-11	CONNECTOR, BOARD TO BOARD 7P	
CN302	*	1-779-889-11	CONNECTOR, BOARD TO BOARD 8P	
CN303	*	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P	
CN305	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN306	*	1-564-507-11	PLUG, CONNECTOR 4P	
CN307	*	1-774-813-11	CONNECTOR, BOARD TO BOARD 7P	
CN501	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN502	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN503	*	1-564-510-11	PLUG, CONNECTOR 7P	
CN504		1-695-915-11	TAB (CONTACT)	
CN505	*	1-564-508-11	PLUG, CONNECTOR 5P	
CN507	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN508		1-695-915-11	TAB (CONTACT)	
CN601	*	1-580-843-11	PIN, CONNECTOR (POWER)	
CN602	*	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN603	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN604	*	1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P	
CN608	*	1-564-507-11	PLUG, CONNECTOR 4P	
CN904	*	1-564-512-11	PLUG, CONNECTOR 9P	
			<DIODE>	
D001		8-719-988-61	DIODE 1SS355TE-17	
D002		8-719-988-61	DIODE 1SS355TE-17	
D004		1-216-295-11	SHORT 0	
D005		8-719-988-61	DIODE 1SS355TE-17	
D006		1-216-295-11	SHORT 0	
D100		8-719-988-61	DIODE 1SS355TE-17	
D300		1-216-295-11	SHORT 0	
D301		8-719-988-61	DIODE 1SS355TE-17	
D306		8-719-988-61	DIODE 1SS355TE-17	
D307		8-719-988-61	DIODE 1SS355TE-17	
D308		8-719-988-61	DIODE 1SS355TE-17	
D309		8-719-159-10	DIODE RD5.1SB-T2	
D311		8-719-988-61	DIODE 1SS355TE-17	
D312		8-719-988-61	DIODE 1SS355TE-17	
D313		8-719-988-61	DIODE 1SS355TE-17	
D315		8-719-988-61	DIODE 1SS355TE-17	
D316		8-719-037-20	DIODE RD11SB2-T1	
D320		8-719-158-35	DIODE RD9.1S-B	
D321		8-719-158-35	DIODE RD9.1S-B	
D504		8-719-302-43	DIODE ELIZ	
D505		8-719-988-61	DIODE 1SS355TE-17	
D506		8-719-911-19	DIODE 1SS119-25	
D507		8-719-988-61	DIODE 1SS355TE-17	
D508		8-719-988-61	DIODE 1SS355TE-17	
D509		1-216-073-00	RES-CHIP 10K 5% 1/10W	
D510		8-719-988-61	DIODE 1SS355TE-17	
D511		8-719-988-61	DIODE 1SS355TE-17	
D512		8-719-988-61	DIODE 1SS355TE-17	
D513		8-719-908-03	DIODE GP08D	
D517		8-719-312-71	DIODE RS3FS	
D518		8-719-074-35	DIODE RU4AM-T4	
D519		8-719-312-71	DIODE RS3FS	
D521		8-719-302-43	DIODE ELIZ	

REF. NO.	PART NO.	DESCRIPTION	REMARK
D522	8-719-028-45	DIODED 2L20U	
D523	8-719-302-43	DIODE ELIZ	
D527	8-719-908-03	DIODE GP08D	
D528	8-719-908-03	DIODE GP08D	
D531	8-719-988-61	DIODE 1SS355TE-17	
D532	8-719-988-61	DIODE 1SS355TE-17	
D534	8-719-988-61	DIODE 1SS355TE-17	
D600	8-719-911-19	DIODE 1SS119-25	
D602	8-719-911-19	DIODE 1SS119-25	
D603	8-719-150-92	DIODE RD33ESB3T	
D604	8-719-028-72	DIODE RGP02-17EL-6433	
D605	8-719-052-84	DIODE RBV-406H-02	
D605	8-719-510-22	DIODE D3SB60	
D606	8-719-108-18	DIODE 5P-6M	
D607	8-719-073-01	DIODE MA111-K8.50	
D608	8-719-110-53	DIODE RD20ES-B2	
D609	8-719-311-31	DIODE BYV26E/23	
D609	8-719-311-31	DIODE RU-1P	
D610	8-719-043-76	DIODE AK04V0	
D611	8-719-046-74	DIODE AU-01Z	
D612	8-719-071-38	DIODE D5S6M	
D613	8-719-046-74	DIODE AU-01Z-V1	
D614	8-719-046-74	DIODE AU-01Z-V1	
D617	8-719-067-18	DIODE RN4Z	
D620	8-719-110-72	DIODE RD30ES-B2	
D622	8-719-077-49	DIODE D3L60	
D623	8-719-978-65	DIODE DTZ-TT11-15B	
D624	8-719-073-01	DIODE MA111-(K8).S0	
D625	8-719-977-28	DIODE DTZ10B	
D628	8-719-911-19	DIODE 1SS119-25	
D630	8-719-052-74	DIODE FMX-12S	
D631	8-719-068-00	DIODE ERC04-06SE	
D632	8-719-068-00	DIODE ERC04-06SE	
D633	8-719-948-45	DIODE ERA22-08	
D634	8-719-073-01	DIODE MA111-(K8).S0	
D635	8-719-073-01	DIODE MA111-(K8).S0	
D636	8-719-510-02	DIODE D1NS4	
D637	8-719-109-96	DIODE RD6.8ES-B1	
D638	8-719-510-48	DIODE D1N20R	
		<CONNECTOR>	
DY1	*1-580-798-11	CONNECTOR PIN (DY) 6P	
		<FERRITE BEAD>	
FB101	1-216-295-11	SHORT 0	
FB102	1-216-295-11	SHORT 0	
FB300	1-412-911-31	FERRITE 0UH	
FB501	1-410-397-21	FERRITE 1.1UH	
FB502	1-410-397-21	FERRITE 1.1UH	
FB600	1-410-397-21	FERRITE 1.1UH	
FB601	1-410-397-21	FERRITE 1.1UH	
FB602	1-410-397-21	FERRITE 1.1UH	
FB603	1-410-397-21	FERRITE 1.1UH	
FB604	1-412-911-31	FERRITE 0UH	

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The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION		REMARK
FB605	1-412-911-31	FERRITE	0UH	
FB606	1-412-911-31	FERRITE	0UH	
FB608	1-412-911-31	FERRITE	0UH	
FB611	1-410-397-21	FERRITE	1.1UH	
FB612	1-410-397-21	FERRITE	1.1UH	
FB613	1-410-397-21	FERRITE	1.1UH	
FB615	1-410-397-21	FERRITE	1.1UH	
		<IC>		
IC001	8-752-917-80	IC CXP750097-032S		
IC002	8-759-371-21	IC MM1319AFBE		
IC003	8-759-672-78	IC M24C08-BN6		
IC100	8-759-042-02	IC S-80743AL-A7-S		
IC301	8-752-095-72	IC CXA2159S		
IC302	8-759-666-90	IC TDA9181T		
IC502	8-759-700-07	IC NJM2903M		
IC503	8-759-980-58	IC TDA8172		
IC601	8-749-014-48	IC STR-F6656		
IC602	8-749-920-61	IC SE-135N		
IC603	8-759-701-59	IC NJM78M09FA		
IC604	8-759-231-53	IC TA7805S		
		<CHIP CONDUCTOR>		
JR001	1-216-295-11	SHORT	0	
JR002	1-216-295-11	SHORT	0	
JR003	1-216-295-11	SHORT	0	
JR004	1-216-295-11	SHORT	0	
JR006	1-216-295-11	SHORT	0	
JR007	1-216-295-11	SHORT	0	
JR008	1-216-295-11	SHORT	0	
JR010	1-216-295-11	SHORT	0	
JR012	1-216-295-11	SHORT	0	
JR014	1-216-295-11	SHORT	0	
JR015	1-216-295-11	SHORT	0	
JR016	1-216-295-11	SHORT	0	
JR020	1-216-295-11	SHORT	0	
JR022	1-216-295-11	SHORT	0	
JR023	1-216-295-11	SHORT	0	
JR024	1-216-295-11	SHORT	0	
JR025	1-216-295-11	SHORT	0	
JR028	1-216-295-11	SHORT	0	
JR030	1-216-295-11	SHORT	0	
JR031	1-216-295-11	SHORT	0	
JR102	1-216-295-11	SHORT	0	
JR107	1-216-295-11	SHORT	0	
JR304	1-216-295-11	SHORT	0	
JR308	1-216-295-11	SHORT	0	
JR309	1-216-295-11	SHORT	0	
JR310	1-216-295-11	SHORT	0	
JR311	1-216-295-11	SHORT	0	
JR500	1-216-295-11	SHORT	0	
JR501	1-216-295-11	SHORT	0	
JR502	1-216-295-11	SHORT	0	
JR503	1-216-295-11	SHORT	0	
JR600	1-216-295-11	SHORT	0	

REF. NO.	PART NO.	DESCRIPTION		REMARK
		<COIL>		
L002	1-414-856-11	INDUCTOR	10UH	
L003	1-414-180-11	INDUCTOR	3.3UH	
L005	1-414-233-22	INDUCTOR	0UH	
L101	1-414-856-11	INDUCTOR	10UH	
L102	1-414-856-11	INDUCTOR	10UH	
L103	1-414-856-11	INDUCTOR	10UH	
L104	1-414-856-11	INDUCTOR	10UH	
L105	1-414-856-11	INDUCTOR	10UH	
L301	1-414-189-31	INDUCTOR	100UH	
L302	1-414-185-41	INDUCTOR	22UH	
L303	1-414-189-31	INDUCTOR	100UH	
L304	1-414-189-31	INDUCTOR	100UH	
L501	1-412-525-31	INDUCTOR	10UH	
L502	1-422-613-11	COIL, AIR CORE		
L503	1-412-525-31	INDUCTOR	10UH	
L504	1-412-525-31	INDUCTOR	10UH	
L507	1-459-111-00	INDUCTOR	10MH	
L511	1-406-977-71	INDUCTOR	0UH	
L513	1-412-551-31	INDUCTOR	1.5MH	
L515	1-459-104-00	COIL, WITH CORE		
L518	1-414-187-11	INDUCTOR	47UH	
L601	1-412-527-11	INDUCTOR	15UH	
L905	1-414-856-11	INDUCTOR	10UH	
		<PHOTO COUPLER>		
PH600	⚠8-749-924-35	PHOTO COUPLER ON3171-R		
		<TRANSISTOR>		
Q002	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q101	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q301	8-729-216-22	TRANSISTOR 2SA1162-G		
Q302	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q303	8-729-216-22	TRANSISTOR 2SA1162-G		
Q304	8-729-216-22	TRANSISTOR 2SA1162-G		
Q305	8-729-216-22	TRANSISTOR 2SA1162-G		
Q306	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q307	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q308	8-729-216-22	TRANSISTOR 2SA1162-G		
Q309	8-729-421-19	TRANSISTOR UN2213		
Q310	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q311	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q312	8-729-216-22	TRANSISTOR 2SA1162-G		
Q313	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q314	8-729-216-22	TRANSISTOR 2SA1162-G		
Q315	8-729-431-17	TRANSISTOR DTC144EKA-T146		
Q316	8-729-216-22	TRANSISTOR 2SA1162-G		
Q317	8-729-216-22	TRANSISTOR 2SA1162-G		
Q501	8-729-216-22	TRANSISTOR 2SA1162-G		
Q502	8-729-216-22	TRANSISTOR 2SA1162-G		
Q503	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q505	8-729-931-45	TRANSISTOR IRF614-LF		
Q505	8-729-931-45	TRANSISTOR IRF614		
Q506	8-729-119-80	TRANSISTOR 2SC2688-LK		

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REF. NO.	PART NO.	DESCRIPTION			REMARK
Q507	8-729-216-22	TRANSISTOR 2SA1162-G			
Q509	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q511	8-729-048-07	TRANSISTOR 2SD2578-CA			
Q600	8-729-119-78	TRANSISTOR 2SC2785TP-HFE			
Q601	8-729-023-22	TRANSISTOR 2SD2114K			
Q602	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q603	8-729-027-23	TRANSISTOR DTA114EKA-T146			
Q604	8-729-200-17	TRANSISTOR 2SA109-0			
Q605	8-729-044-30	TRANSISTOR 2SK2845-LB102			
Q606	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q607	8-729-922-37	TRANSISTOR 2SD2144S-UVW			
Q608	8-729-230-49	TRANSISTOR 2SC2712-YG			
		<RESISTOR>			
R001	1-414-233-22	INDUCTOR	0UH		
R002	1-216-025-11	RES-CHIP	100	5%	1/10W
R003	1-216-073-00	RES-CHIP	10K	5%	1/10W
R004	1-216-025-11	RES-CHIP	100	5%	1/10W
R005	1-216-025-11	RES-CHIP	100	5%	1/10W
R008	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R010	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R011	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R012	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R013	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R014	1-216-025-11	RES-CHIP	100	5%	1/10W
R015	1-216-025-11	RES-CHIP	100	5%	1/10W
R017	1-216-049-11	RES-CHIP	1K	5%	1/10W
R018	1-216-033-00	RES-CHIP	220	5%	1/10W
R019	1-216-073-00	RES-CHIP	10K	5%	1/10W
R020	1-216-045-00	RES-CHIP	680	5%	1/10W
R021	1-216-073-00	RES-CHIP	10K	5%	1/10W
R022	1-216-295-11	SHORT	0		
R023	1-216-049-11	RES-CHIP	1K	5%	1/10W
R024	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R025	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R026	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R027	1-216-049-11	RES-CHIP	1K	5%	1/10W
R028	1-216-073-00	RES-CHIP	10K	5%	1/10W
R029	1-216-049-11	RES-CHIP	1K	5%	1/10W
R031	1-216-049-11	RES-CHIP	1K	5%	1/10W
R032	1-216-025-11	RES-CHIP	100	5%	1/10W
R034	1-216-049-11	RES-CHIP	1K	5%	1/10W
R035	1-216-025-11	RES-CHIP	100	5%	1/10W
R036	1-216-025-11	RES-CHIP	100	5%	1/10W
R037	1-216-025-11	RES-CHIP	100	5%	1/10W
R038	1-216-049-11	RES-CHIP	1K	5%	1/10W
R040	1-216-025-11	RES-CHIP	100	5%	1/10W
R041	1-216-025-11	RES-CHIP	100	5%	1/10W
R042	1-216-295-11	SHORT	0		
R043	1-216-049-11	RES-CHIP	1K	5%	1/10W
R044	1-216-025-11	RES-CHIP	100	5%	1/10W
R045	1-414-233-22	INDUCTOR	0UH		
R046	1-216-049-11	RES-CHIP	1K	5%	1/10W
R047	1-414-233-22	INDUCTOR	0UH		
R048	1-216-073-00	RES-CHIP	10K	5%	1/10W
R050	1-216-073-00	RES-CHIP	10K	5%	1/10W
R053	1-216-049-11	RES-CHIP	1K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R058	1-216-295-11	SHORT	0		
R059	1-216-295-11	SHORT	0		
R060	1-216-295-11	SHORT	0		
R061	1-216-295-11	SHORT	0		
R062	1-216-041-00	RES-CHIP	470	5%	1/10W
R063	1-216-041-00	RES-CHIP	470	5%	1/10W
R064	1-216-041-00	RES-CHIP	470	5%	1/10W
R065	1-216-041-00	RES-CHIP	470	5%	1/10W
R066	1-216-049-11	RES-CHIP	1K	5%	1/10W
R067	1-216-049-11	RES-CHIP	1K	5%	1/10W
R068	1-216-041-00	RES-CHIP	470	5%	1/10W
R101	1-216-025-11	RES-CHIP	100	5%	1/10W
R102	1-216-025-11	RES-CHIP	100	5%	1/10W
R105	1-216-295-11	SHORT	0		
R109	1-216-041-00	RES-CHIP	470	5%	1/10W
R111	1-216-025-11	RES-CHIP	100	5%	1/10W
R112	1-216-025-11	RES-CHIP	100	5%	1/10W
R113	1-216-025-11	RES-CHIP	100	5%	1/10W
R225	1-216-033-00	RES-CHIP	220	5%	1/10W
R226	1-216-033-00	RES-CHIP	220	5%	1/10W
R227	1-216-033-00	RES-CHIP	220	5%	1/10W
R237	1-216-295-11	SHORT	0		
R301	1-216-113-00	RES-CHIP	470K	5%	1/10W
R302	1-216-295-11	SHORT	0		
R303	1-216-049-11	RES-CHIP	1K	5%	1/10W
R304	1-216-073-00	RES-CHIP	10K	5%	1/10W
R308	1-216-025-11	RES-CHIP	100	5%	1/10W
R309	1-216-025-11	RES-CHIP	100	5%	1/10W
R310	1-216-025-11	RES-CHIP	100	5%	1/10W
R311	1-216-041-00	RES-CHIP	470	5%	1/10W
R312	1-216-039-00	RES-CHIP	390	5%	1/10W
R313	1-216-037-00	RES-CHIP	330	5%	1/10W
R314	1-216-083-00	RES-CHIP	27K	5%	1/10W
R315	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R316	1-216-037-00	RES-CHIP	330	5%	1/10W
R317	1-216-091-00	RES-CHIP	56K	5%	1/10W
R318	1-216-039-00	RES-CHIP	390	5%	1/10W
R319	1-216-025-11	RES-CHIP	100	5%	1/10W
R320	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R321	1-216-073-00	RES-CHIP	10K	5%	1/10W
R322	1-216-033-00	RES-CHIP	220	5%	1/10W
R323	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R324	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R326	1-216-029-00	RES-CHIP	150	5%	1/10W
R327	1-216-033-00	RES-CHIP	220	5%	1/10W
R328	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R329	1-216-041-00	RES-CHIP	470	5%	1/10W
R331	1-216-295-11	SHORT	0		
R332	1-216-033-00	RES-CHIP	220	5%	1/10W
R335	1-216-045-00	RES-CHIP	680	5%	1/10W
R338	1-216-037-00	RES-CHIP	330	5%	1/10W
R339	1-216-033-00	RES-CHIP	220	5%	1/10W
R340	1-216-025-11	RES-CHIP	100	5%	1/10W
R345	1-216-081-00	RES-CHIP	22K	5%	1/10W
R348	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R349	1-216-073-00	RES-CHIP	10K	5%	1/10W
R350	1-216-061-00	RES-CHIP	3.3K	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R351	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R354	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R355	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R356	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R357	1-216-079-00	RES-CHIP	18K	5%	1/10W
R358	1-216-049-11	RES-CHIP	1K	5%	1/10W
R359	1-216-033-00	RES-CHIP	220	5%	1/10W
R360	1-216-033-00	RES-CHIP	220	5%	1/10W
R361	1-216-073-00	RES-CHIP	10K	5%	1/10W
R362	1-216-075-00	RES-CHIP	12K	5%	1/10W
R363	1-216-079-00	RES-CHIP	18K	5%	1/10W
R364	1-216-295-11	SHORT	0		
R365	1-216-033-00	RES-CHIP	220	5%	1/10W
R366	1-216-073-00	RES-CHIP	10K	5%	1/10W
R367	1-216-073-00	RES-CHIP	10K	5%	1/10W
R368	1-216-073-00	RES-CHIP	10K	5%	1/10W
R370	1-216-033-00	RES-CHIP	220	5%	1/10W
R371	1-216-083-00	RES-CHIP	27K	5%	1/10W
R372	1-216-091-00	RES-CHIP	56K	5%	1/10W
R375	1-216-025-11	RES-CHIP	100	5%	1/10W
R376	1-216-081-00	RES-CHIP	22K	5%	1/10W
R377	1-216-121-11	RES-CHIP	1M	5%	1/10W
R378	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R379	1-218-179-11	RES-CHIP	10M	5%	1/10W
R381	1-216-295-11	SHORT	0		
R382	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R383	1-216-049-11	RES-CHIP	1K	5%	1/10W
R384	1-216-041-00	RES-CHIP	470	5%	1/10W
R385	1-216-029-00	RES-CHIP	150	5%	1/10W
R391	1-216-295-11	SHORT	0		
R500	1-249-417-11	CARBON	1K	5%	1/4W
R501	1-216-049-11	RES-CHIP	1K	5%	1/10W
R505	1-208-830-11	METAL CHIP	100K	0.5%	1/10W
R506	1-216-081-00	RES-CHIP	22K	5%	1/10W
R507	1-249-389-11	CARBON	4.7	5%	1/4W
R508	1-216-471-11	METAL OXIDE	27	5%	3W
R509	1-216-473-11	METAL OXIDE	56	5%	3W
R510	1-216-449-11	METAL OXIDE	56	5%	2W
R511	1-215-908-00	METAL OXIDE	33	5%	3W
R515	1-215-911-11	METAL OXIDE	100	5%	3W
R517	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R518	1-247-807-31	CARBON	100	5%	1/4W
R519	1-215-913-11	METAL OXIDE	220	5%	3W
R520	1-215-445-00	METAL	10K	1%	1/4W
R522	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R523	1-249-411-11	CARBON	330	5%	1/4W
R525	1-208-846-11	METAL CHIP	470K	0.5%	1/10W
R526	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W
R527	1-216-001-00	RES-CHIP	10	5%	1/10W
R528	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
R529	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R531	1-247-843-11	CARBON	3.3K	5%	1/4W
R533	1-249-417-11	CARBON	1K	5%	1/4W
R534	1-216-364-11	METAL OXIDE	0.39	5%	2W
R535	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R536	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R537	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W
R539	1-216-049-11	RES-CHIP	1K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R540	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R541	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R542	1-216-073-00	RES-CHIP	10K	5%	1/10W
R543	1-216-437-00	METAL OXIDE	5.6K	5%	1W
R544	1-215-917-11	METAL OXIDE	1K	5%	3W
R545	1-216-077-91	RES-CHIP	15K	5%	1/10W
R546	1-216-077-91	RES-CHIP	15K	5%	1/10W
R547	1-216-085-00	RES-CHIP	33K	5%	1/10W
R548	1-208-796-11	METAL CHIP	3.9K	0.5%	1/10W
R549	1-215-452-00	METAL	20K	1%	1/4W
R550	1-216-097-11	RES-CHIP	100K	5%	1/10W
R551	1-249-441-11	CARBON	100K	5%	1/4W
R552	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R553	1-215-453-00	METAL	22K	1%	1/4W
R554	1-215-453-00	METAL	22K	1%	1/4W
R556	1-215-437-00	METAL	4.7K	1%	1/4W
R558	1-247-843-11	CARBON	3.3K	5%	1/4W
R559	1-249-429-11	CARBON	10K	5%	1/4W
R560	1-216-073-00	RES-CHIP	10K	5%	1/10W
R561	1-216-049-11	RES-CHIP	1K	5%	1/10W
R562	1-249-401-11	CARBON	47	5%	1/4W
R564	1-208-820-11	METAL CHIP	39K	0.5%	1/10W
R565	1-216-073-00	RES-CHIP	10K	5%	1/10W
R567	1-216-105-91	RES-CHIP	220K	5%	1/10W
R568	1-249-383-11	CARBON	1.5	5%	1/4W
R570	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R571	1-215-443-00	METAL	8.2K	1%	1/4W
R573	1-216-083-00	RES-CHIP	27K	5%	1/10W
R575	1-208-796-11	METAL CHIP	3.9K	0.5%	1/10W
R577	1-215-913-11	METAL OXIDE	220	5%	3W
R578	1-216-369-00	METAL OXIDE	1	5%	2W
R579	1-216-295-11	SHORT	0		
R580	1-208-830-11	METAL CHIP	100K	0.5%	1/10W
R581	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R582	1-208-842-11	METAL CHIP	330K	0.5%	1/10W
R584	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R585	1-249-385-11	CARBON	2.2	5%	1/4W
R587	1-216-295-11	SHORT	0		
R588	1-215-888-00	METAL OXIDE	220	5%	2W
R589	1-215-888-00	METAL OXIDE	220	5%	2W
R590	1-215-465-00	METAL	68K	1%	1/4W
R591	1-260-288-11	CARBON	0.47	5%	1/2W
R592	1-208-820-11	METAL CHIP	39K	0.5%	1/10W
R593	1-260-288-11	CARBON	0.47	5%	1/2W
R594	1-260-288-11	CARBON	0.47	5%	1/2W
R595	1-216-073-00	RES-CHIP	10K	5%	1/10W
R596	1-215-916-00	METAL OXIDE	680	5%	3W
R597	1-247-750-11	CARBON	680	5%	1/2W
R598	1-249-438-11	CARBON	56K	5%	1/4W
R599	1-249-389-11	CARBON	4.7	5%	1/4W
R600	1-249-438-11	CARBON	56K	5%	1/4W
R601	1-249-420-11	CARBON	1.8K	5%	1/4W
R602	1-249-389-11	CARBON	4.7	5%	1/4W
R603	1-215-485-00	METAL	470K	1%	1/4W
R604	1-216-097-11	RES-CHIP	100K	5%	1/10W
R607	1-249-425-11	CARBON	4.7K	5%	1/4W
R608	1-240-205-91	CARBON	22M	5%	1/2W

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF. NO.		PART NO.	DESCRIPTION			REMARK
R609		1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R610		1-216-073-00	RES-CHIP	10K	5%	1/10W
R611		1-216-089-11	RES-CHIP	47K	5%	1/10W
R612		1-216-045-00	RES-CHIP	680	5%	1/10W
R614		1-216-041-00	RES-CHIP	470	5%	1/10W
R615		1-216-369-00	METAL OXIDE	1	5%	2W
R616		1-260-302-51	CARBON	6.8	5%	1/2W
R617		1-247-791-91	CARBON	22	5%	1/4W
R619		1-260-128-91	CARBON	270K	5%	1/2W
R621		1-215-864-00	METAL OXIDE	150	5%	1W
R623		1-216-095-00	RES-CHIP	82K	5%	1/10W
R624		1-216-089-11	RES-CHIP	47K	5%	1/10W
R626		1-216-049-11	RES-CHIP	1K	5%	1/10W
R627		1-240-251-11	CEMENTED	6.8	5%	10W
R629		1-247-747-11	CARBON	470	5%	1/2W
R630		1-249-429-11	CARBON	10K	5%	1/4W
R631		1-216-089-11	RES-CHIP	47K	5%	1/10W
R632		1-220-886-11	FUSIBLE	0.1	10%	1W
R634	⚠	1-218-265-11	METAL	8.2M	5%	1W
R635		1-216-492-11	METAL OXIDE	82K	5%	3W
R636		1-215-924-00	METAL OXIDE	15K	5%	3W
R637		1-216-492-11	METAL OXIDE	82K	5%	3W
R639		1-216-361-21	METAL OXIDE	0.22	5%	2W
R640		1-249-415-11	CARBON	680	5%	1/4W
R641		1-216-361-21	METAL OXIDE	0.22	5%	2W
R642		1-249-419-11	CARBON	1.5K	5%	1/4W
R643		1-247-843-11	CARBON	3.3K	5%	1/4W
R644		1-249-419-11	CARBON	1.5K	5%	1/4W
R646		1-215-924-00	METAL OXIDE	15K	5%	3W
R647		1-249-387-11	CARBON	3.3	5%	1/4W
R648		1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R649		1-249-417-11	CARBON	1K	5%	1/4W
R650		1-215-882-00	METAL OXIDE	22	5%	2W
R652		1-215-900-11	METAL OXIDE	22K	5%	2W
R653		1-215-873-00	METAL OXIDE	4.7K	5%	1W
R656		1-249-417-11	CARBON	1K	5%	1/4W
R657		1-260-127-11	CARBON	220K	5%	1/2W
R659		1-216-049-11	RES-CHIP	1K	5%	1/10W
R660		1-216-073-00	RES-CHIP	10K	5%	1/10W
R661		1-215-873-00	METAL OXIDE	4.7K	5%	1W
R682		1-219-134-11	FUSIBLE	0.1	10%	1/4W
R909		1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R910		1-216-065-91	RES-CHIP	4.7K	5%	1/10W
			<RELAY>			
RY600	⚠	1-755-214-11	RELAY, AC POWER			
RY601	⚠	1-755-214-11	RELAY, AC POWER			
			<SWITCH>			
S501		1-572-707-11	SWITCH, LEVER			
S502		1-572-707-11	SWITCH, LEVER			

REF. NO.		PART NO.	DESCRIPTION	REMARK
			<TRANSFORMER>	
T501		1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE	
T503	⚠	1-453-305-11	TRANSFORMER ASSY FLY BACK NX4009/C6P4	
T504		1-431-693-11	TRANSFORMER, HORIZONTAL LINEAR	
T505		1-426-981-11	TRANSFORMER, FERRITE (PMT)	
T601		1-424-505-11	TRANSFORMER, LINE FILTER	
T603	⚠	1-431-976-11	TRANSFORMER, CONVERTER (SRT)	
T604	⚠	1-431-852-11	TRANSFORMER, CONVERTER (SRT)	
			<THERMISTOR>	
TH600		1-803-586-11	THERMISTOR, NTC	
			<THERMISTOR>	
THP600		1-803-540-11	THERMISTOR	
			<TUNER>	
TU101		8-598-452-20	TUNER, FSS BTF-WG442	
			<CRYSTAL>	
X001		1-781-174-21	VIBRATOR, CERAMIC	
X301		1-781-134-21	VIBRATOR, CRYSTAL	
X302		1-781-132-21	VIBRATOR, CRYSTAL	

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	A-1136-140-A	B BOARD COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C1305	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1307	1-164-346-11	CERAMIC CHIP	1UF		16V
C1310	1-104-664-11	ELECT	47UF	20.00%	16V
C1311	1-163-113-00	CERAMIC CHIP	68PF	5.00%	50V
C1312	1-104-664-11	ELECT	47UF	20.00%	16V
C1330	1-126-964-11	ELECT	10UF	20.00%	50V
C1333	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1395	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C1401	1-104-661-91	ELECT	330UF	20.00%	16V
C1402	1-104-664-11	ELECT	47UF	20.00%	25V
C1403	1-104-664-11	ELECT	47UF	20.00%	25V
C1404	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1405	1-104-664-11	ELECT	47UF	20.00%	25V
C1406	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C1407	1-126-933-11	ELECT	100UF	20.00%	16V
C1408	1-126-964-11	ELECT	10UF	20.00%	50V
C1410	1-104-664-11	ELECT	47UF	20.00%	25V
C1411	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1412	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1413	1-126-935-11	ELECT	470UF	20.00%	16V

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C1414	1-164-346-11	CERAMIC CHIP	1UF		16V
C1415	1-104-664-11	ELECT	47UF	20.00%	25V
C1416	1-164-346-11	CERAMIC CHIP	1UF		16V
C1417	1-126-933-11	ELECT	100UF	20.00%	16V
C1418	1-163-031-11	CERAMIC CHIP	0.01UF		50V
C1419	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C1420	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1421	1-164-346-11	CERAMIC CHIP	1UF		16V
C1422	1-164-346-11	CERAMIC CHIP	1UF		16V
C1423	1-164-346-11	CERAMIC CHIP	1UF		16V
C1425	1-164-346-11	CERAMIC CHIP	1UF		16V
C1426	1-164-346-11	CERAMIC CHIP	1UF		16V
C1428	1-104-665-11	ELECT	100UF	20.00%	25V
C1429	1-104-663-11	ELECT	33UF	20.00%	25V
C1430	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C1431	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1432	1-126-933-11	ELECT	100UF	20.00%	16V
C1433	1-104-664-11	ELECT	47UF	20.00%	16V
C1434	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1435	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1436	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1438	1-163-005-11	CERAMIC CHIP	470PF	10.00%	50V
C1439	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1440	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1441	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1442	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1443	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1444	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C1445	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1446	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1447	1-126-964-11	ELECT	10UF	20.00%	50V
C1448	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C1449	1-126-933-11	ELECT	100UF	20.00%	16V
C1450	1-163-005-11	CERAMIC CHIP	470PF	10.00%	50V
C1451	1-163-005-11	CERAMIC CHIP	470PF	10.00%	50V
C1452	1-163-005-11	CERAMIC CHIP	470PF	10.00%	50V
C1453	1-126-933-11	ELECT	100UF	20.00%	16V
C1454	1-126-967-11	ELECT	47UF	20.00%	50V
C1455	1-126-967-11	ELECT	47UF	20.00%	50V
C1456	1-126-933-11	ELECT	100UF	20.00%	16V
C1457	1-164-346-11	CERAMIC CHIP	1UF		16V
C1458	1-126-933-11	ELECT	100UF	20.00%	16V
C1459	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1460	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C1461	1-164-346-11	CERAMIC CHIP	1UF		16V
C1462	1-164-346-11	CERAMIC CHIP	1UF		16V
C1464	1-126-933-11	ELECT	100UF	20.00%	16V
C3201	1-126-964-11	ELECT	10UF	20.00%	50V
C3202	1-136-171-00	FILM	0.33UF	5.00%	50V
C3203	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C3208	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V
C3209	1-164-489-11	CERAMIC CHIP	0.22UF	10.00%	16V
C3210	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C3211	1-164-489-11	CERAMIC CHIP	0.22UF	10.00%	16V
C3213	1-104-665-11	ELECT	100UF	20.00%	25V
C3214	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C3215	1-126-964-11	ELECT	10UF	20.00%	50V
C3216	1-126-964-11	ELECT	10UF	20.00%	50V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C3217	1-104-665-11	ELECT	100UF	20.00%	25V
C3218	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C3219	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V
C3220	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3221	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3222	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3223	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C3224	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C3225	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C3226	1-126-964-11	ELECT	10UF	20.00%	50V
C3227	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C3228	1-107-698-11	ELECT	10UF	20.00%	25V
C3229	1-107-698-11	ELECT	10UF	20.00%	25V
C3230	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C3231	1-126-960-11	ELECT	1UF	20.00%	50V
C3232	1-126-960-11	ELECT	1UF	20.00%	50V
C3233	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C3234	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C3235	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C3236	1-115-185-11	CERAMIC CHIP	0.033UF	10.00%	50V
C3237	1-164-182-11	CERAMIC CHIP	0.0033UF	10.00%	50V
C3238	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C3239	1-136-171-00	FILM	0.33UF	5.00%	50V
C3240	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3241	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3242	1-126-965-11	ELECT	22UF	20.00%	50V
C3243	1-163-989-11	CERAMIC CHIP	0.033UF	10.00%	25V
C3244	1-164-346-11	CERAMIC CHIP	1UF		16V
C3245	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C3246	1-163-243-11	CERAMIC CHIP	47PF	5.00%	50V
C3247	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3248	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C3249	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C3250	1-164-346-11	CERAMIC CHIP	1UF		16V
C3251	1-126-964-11	ELECT	10UF	20.00%	50V
C3252	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C3253	1-126-933-11	ELECT	100UF	20.00%	16V
C3254	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C3255	1-163-243-11	CERAMIC CHIP	47PF	5.00%	50V
C3256	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3257	1-164-346-11	CERAMIC CHIP	1UF		16V
C3258	1-163-989-11	CERAMIC CHIP	0.033UF	10.00%	25V
C3259	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3260	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C3262	1-104-664-11	ELECT	47UF	20.00%	16V
C3264	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C3265	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C3266	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C3267	1-164-182-11	CERAMIC CHIP	0.0033UF	10.00%	50V
C3268	1-163-009-11	CERAMIC CHIP	0.001UF	10.00%	50V
C3269	1-163-009-11	CERAMIC CHIP	0.001UF	10.00%	50V
C3270	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3271	1-126-963-11	ELECT	4.7UF	20.00%	50V
C3272	1-104-665-11	ELECT	100UF	20.00%	25V
C3273	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C3274	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C3275	1-115-185-11	CERAMIC CHIP	0.033UF	10.00%	50V

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C3276	1-115-185-11	CERAMIC CHIP	0.033UF	10.00% 50V	
C3277	1-115-185-11	CERAMIC CHIP	0.033UF	10.00% 50V	
C3280	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V	
C3281	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V	
C6200	1-216-295-11	SHORT	0		
C6202	1-128-550-11	ELECT	2200UF	20.00% 50V	
C6203	1-163-021-91	CERAMIC CHIP	0.01UF	10.00% 50V	
C6204	1-128-550-11	ELECT	2200UF	20.00% 50V	
C6205	1-130-495-00	MYLAR	0.1UF	5.00% 50V	
C6206	1-128-550-11	ELECT	2200UF	20.00% 50V	
C6209	1-130-495-00	MYLAR	0.1UF	5.00% 50V	
C6210	1-126-924-11	ELECT	330UF	20.00% 10V	
C6211	1-126-924-11	ELECT	330UF	20.00% 10V	
C6212	1-104-664-11	ELECT	47UF	20.00% 25V	
C6213	1-126-964-11	ELECT	10UF	20.00% 50V	
C6217	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V	
C6220	1-164-505-11	CERAMIC CHIP	2.2UF	16V	
C6222	1-164-505-11	CERAMIC CHIP	2.2UF	16V	
C6223	1-126-960-11	ELECT	1UF	20.00% 50V	
C6241	1-126-964-11	ELECT	10UF	20.00% 50V	
C6244	1-164-161-11	CERAMIC CHIP	0.0022UF	10.00% 50V	
C6245	1-164-161-11	CERAMIC CHIP	0.0022UF	10.00% 50V	
C6249	1-216-295-11	SHORT	0		
		<CONNECTOR>			
CN1300*	1-564-506-11	PLUG, CONNECTOR 3P			
CN1400*	1-564-512-11	PLUG, CONNECTOR 9P			
CN1401*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P			
CN1403*	1-564-506-11	PLUG, CONNECTOR 3P			
CN1404*	1-779-891-11	CONNECTOR, BOARD TO BOARD 8P			
CN1405*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P			
CN1406*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P			
CN1407*	1-779-891-11	CONNECTOR, BOARD TO BOARD 8P			
CN14081	1-764-818-11	CONNECTOR, BOARD TO BOARD 10P			
CN14091-	1-764-818-11	CONNECTOR, BOARD TO BOARD 10P			
CN6200*	1-564-507-11	PLUG, CONNECTOR 4P			
CN6204*	1-564-509-11	PLUG, CONNECTOR 6P			
CN6206*	1-564-508-11	PLUG, CONNECTOR 5P			
		<DIODE>			
D1401	8-719-158-35	DIODE RD9.1S-B			
D1402	8-719-158-35	DIODE RD9.1S-B			
D1403	8-719-158-35	DIODE RD9.1S-B			
D1404	8-719-158-35	DIODE RD9.1S-B			
D1405	8-719-158-35	DIODE RD9.1S-B			
D1406	8-719-158-35	DIODE RD9.1S-B			
D1407	8-719-158-35	DIODE RD9.1S-B			
D1408	8-719-158-35	DIODE RD9.1S-B			
D1409	8-719-158-35	DIODE RD9.1S-B			
D1410	8-719-158-35	DIODE RD9.1S-B			
D1411	8-719-158-35	DIODE RD9.1S-B			
D1412	8-719-158-35	DIODE RD9.1S-B			
D1415	8-719-158-35	DIODE RD9.1S-B			
D1416	8-719-158-35	DIODE RD9.1S-B			
D1418	8-719-158-35	DIODE RD9.1S-B			

REF. NO.	PART NO.	DESCRIPTION	REMARK
D3201	8-719-988-61	DIODE 1SS355TE-17	
D3203	8-719-988-61	DIODE 1SS355TE-17	
D6210	8-719-820-41	DIODE 1SS302	
D6211	8-719-988-61	DIODE 1SS355TE-17	
D6212	8-719-988-61	DIODE 1SS355TE-17	
		<IC>	
IC1401	8-752-068-46	IC CXA1855S	
IC1402	8-759-100-96	IC UPC4558G2	
IC1403	8-759-231-53	IC L7805S	
IC1404	8-759-701-59	IC NJM78M09FA	
IC3200	8-759-100-96	IC UPC4558G2	
IC3201	8-759-689-71	IC NJM2188M-TE2	
IC3202	8-759-100-96	IC UPC4558G2	
IC3203	8-759-711-10	IC NJU4066BM	
IC3204	8-759-100-96	IC UPC4558G2	
IC3205	8-752-058-68	IC CXA1315M	
IC3206	8-759-678-92	IC BH3868AFS-E2	
IC6200	8-759-168-24	IC TA8200AH	
		<JACK>	
J1401	1-784-646-11	TERMINAL, S	
J1402	1-778-387-11	JACK BLOCK, PIN 12P	
		<CHIP CONDUCTOR>	
JR1303	1-216-295-11	SHORT 0	
JR1401	1-216-295-11	SHORT 0	
JR1405	1-216-295-11	SHORT 0	
JR1406	1-216-295-11	SHORT 0	
JR1407	1-216-295-11	SHORT 0	
JR1409	1-216-295-11	SHORT 0	
JR1410	1-216-295-11	SHORT 0	
JR1411	1-216-295-11	SHORT 0	
JR3202	1-216-295-11	SHORT 0	
JR3204	1-216-295-11	SHORT 0	
JR3209	1-216-295-11	SHORT 0	
JR3210	1-216-295-11	SHORT 0	
JR3211	1-216-295-11	SHORT 0	
JR3212	1-216-295-11	SHORT 0	
JR6200	1-216-295-11	SHORT 0	
JR6202	1-216-295-11	SHORT 0	
JR6203	1-216-295-11	SHORT 0	
JR6204	1-216-295-11	SHORT 0	
JR6206	1-216-295-11	SHORT 0	
		<COIL>	
L1313	1-414-188-41	INDUCTOR 68UH	
L1314	1-414-856-11	INDUCTOR 10UH	
L1315	1-414-856-11	INDUCTOR 10UH	
L1317	1-414-856-11	INDUCTOR 10UH	
L1400	1-414-856-11	INDUCTOR 10UH	
L1402	1-412-537-31	INDUCTOR 100UH	
L1403	1-414-856-11	INDUCTOR 10UH	
L1404	1-412-537-31	INDUCTOR 100UH	

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REF. NO.	PART NO.	DESCRIPTION			REMARK
L1405	1-414-856-11	INDUCTOR	10UH		
L1406	1-414-856-11	INDUCTOR	10UH		
L1407	1-414-856-11	INDUCTOR	10UH		
L3202	1-414-856-11	INDUCTOR	10UH		
		<TRANSISTOR>			
Q1316	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1317	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q1318	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q1323	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q1324	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q1365	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q1372	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q1401	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q1402	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1403	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q1404	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q1408	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q1409	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q1410	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3201	8-729-224-62	TRANSISTOR 2SK246GR			
Q3202	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3203	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3204	8-729-224-62	TRANSISTOR 2SK246GR			
Q6201	8-729-027-59	TRANSISTOR DTC144EKA-T146			
Q6203	8-729-421-19	TRANSISTOR UN2213			
Q6204	8-729-421-19	TRANSISTOR UN2213			
Q6208	8-729-421-19	TRANSISTOR UN2213			
		<RESISTOR>			
R1301	1-216-041-00	RES-CHIP	470	5%	1/10W
R1318	1-216-033-00	RES-CHIP	220	5%	1/10W
R1320	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1343	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1344	1-216-025-11	RES-CHIP	100	5%	1/10W
R1345	1-216-041-00	RES-CHIP	470	5%	1/10W
R1346	1-216-041-00	RES-CHIP	470	5%	1/10W
R1347	1-216-025-11	RES-CHIP	100	5%	1/10W
R1350	1-216-085-00	RES-CHIP	33K	5%	1/10W
R1359	1-216-025-11	RES-CHIP	100	5%	1/10W
R1360	1-216-041-00	RES-CHIP	470	5%	1/10W
R1361	1-216-041-00	RES-CHIP	470	5%	1/10W
R1362	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R1363	1-216-033-00	RES-CHIP	220	5%	1/10W
R1364	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1365	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1366	1-216-295-11	SHORT	0		
R1368	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1369	1-216-025-11	RES-CHIP	100	5%	1/10W
R1370	1-216-041-00	RES-CHIP	470	5%	1/10W
R1371	1-216-039-00	RES-CHIP	390	5%	1/10W
R1372	1-216-041-00	RES-CHIP	470	5%	1/10W
R1397	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1400	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1401	1-216-031-00	RES-CHIP	180	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1402	1-216-033-00	RES-CHIP	220	5%	1/10W
R1403	1-216-033-00	RES-CHIP	220	5%	1/10W
R1404	1-216-295-11	SHORT	0		
R1406	1-216-013-00	RES-CHIP	33	5%	1/10W
R1407	1-216-033-00	RES-CHIP	220	5%	1/10W
R1408	1-216-031-00	RES-CHIP	180	5%	1/10W
R1409	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1410	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1411	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1412	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1413	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1414	1-216-025-11	RES-CHIP	100	5%	1/10W
R1417	1-216-025-11	RES-CHIP	100	5%	1/10W
R1418	1-216-025-11	RES-CHIP	100	5%	1/10W
R1419	1-216-025-11	RES-CHIP	100	5%	1/10W
R1420	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1421	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1423	1-216-025-11	RES-CHIP	100	5%	1/10W
R1424	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1425	1-216-047-91	RES-CHIP	820	5%	1/10W
R1426	1-216-025-11	RES-CHIP	100	5%	1/10W
R1427	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R1428	1-216-025-11	RES-CHIP	100	5%	1/10W
R1429	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1430	1-216-025-11	RES-CHIP	100	5%	1/10W
R1431	1-216-025-11	RES-CHIP	100	5%	1/10W
R1432	1-216-041-00	RES-CHIP	470	5%	1/10W
R1433	1-216-025-11	RES-CHIP	100	5%	1/10W
R1434	1-216-025-11	RES-CHIP	100	5%	1/10W
R1435	1-216-022-00	RES-CHIP	75	5%	1/10W
R1436	1-216-025-11	RES-CHIP	100	5%	1/10W
R1437	1-216-022-00	RES-CHIP	75	5%	1/10W
R1438	1-216-025-11	RES-CHIP	100	5%	1/10W
R1439	1-216-295-11	SHORT	0		
R1441	1-216-025-11	RES-CHIP	100	5%	1/10W
R1442	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1443	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1444	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1445	1-216-025-11	RES-CHIP	100	5%	1/10W
R1446	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1447	1-216-025-11	RES-CHIP	100	5%	1/10W
R1448	1-216-043-91	RES-CHIP	560	5%	1/10W
R1449	1-249-429-11	CARBON	10K	5%	1/4W
R1450	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1451	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1452	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1453	1-216-025-11	RES-CHIP	100	5%	1/10W
R1454	1-216-091-00	RES-CHIP	56K	5%	1/10W
R1455	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1456	1-216-113-00	RES-CHIP	470K	5%	1/10W
R1457	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1458	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1459	1-216-025-11	RES-CHIP	100	5%	1/10W
R1460	1-216-033-00	RES-CHIP	220	5%	1/10W
R1461	1-216-025-11	RES-CHIP	100	5%	1/10W
R1462	1-216-025-11	RES-CHIP	100	5%	1/10W
R1463	1-249-429-11	CARBON	10K	5%	1/4W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R1464	1-216-113-00	RES-CHIP	470K	5%	1/10W
R1465	1-216-113-00	RES-CHIP	470K	5%	1/10W
R1466	1-216-033-00	RES-CHIP	220	5%	1/10W
R1467	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1468	1-216-093-91	RES-CHIP	68K	5%	1/10W
R1469	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1470	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1471	1-216-022-00	RES-CHIP	75	5%	1/10W
R1472	1-216-033-00	RES-CHIP	220	5%	1/10W
R1473	1-216-033-00	RES-CHIP	220	5%	1/10W
R1474	1-216-295-11	SHORT	0		
R1475	1-216-089-11	RES-CHIP	47K	5%	1/10W
R1476	1-216-091-00	RES-CHIP	56K	5%	1/10W
R1477	1-216-047-91	RES-CHIP	820	5%	1/10W
R1478	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R1479	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1480	1-216-105-91	RES-CHIP	220K	5%	1/10W
R1481	1-216-022-00	RES-CHIP	75	5%	1/10W
R1482	1-216-025-11	RES-CHIP	100	5%	1/10W
R1483	1-216-025-11	RES-CHIP	100	5%	1/10W
R1484	1-216-025-11	RES-CHIP	100	5%	1/10W
R1485	1-216-025-11	RES-CHIP	100	5%	1/10W
R1486	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R1487	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1488	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1489	1-216-022-00	RES-CHIP	75	5%	1/10W
R1490	1-216-025-11	RES-CHIP	100	5%	1/10W
R1491	1-216-025-11	RES-CHIP	100	5%	1/10W
R1492	1-216-021-00	RES-CHIP	68	5%	1/10W
R1493	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R1494	1-216-031-00	RES-CHIP	180	5%	1/10W
R1495	1-216-033-00	RES-CHIP	220	5%	1/10W
R1496	1-216-041-00	RES-CHIP	470	5%	1/10W
R1497	1-216-041-00	RES-CHIP	470	5%	1/10W
R1498	1-216-025-11	RES-CHIP	100	5%	1/10W
R1499	1-216-025-11	RES-CHIP	100	5%	1/10W
R1500	1-216-025-11	RES-CHIP	100	5%	1/10W
R1501	1-216-045-00	RES-CHIP	680	5%	1/10W
R1503	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1504	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1505	1-216-022-00	RES-CHIP	75	5%	1/10W
R1506	1-216-033-00	RES-CHIP	220	5%	1/10W
R3200	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3201	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3202	1-216-097-11	RES-CHIP	100K	5%	1/10W
R3203	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3204	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R3205	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R3206	1-216-039-00	RES-CHIP	390	5%	1/10W
R3207	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3208	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R3209	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3210	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R3211	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3212	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R3213	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R3214	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R3215	1-216-095-00	RES-CHIP	82K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R3216	1-216-129-00	RES-CHIP	2.2M	5%	1/10W
R3217	1-216-085-00	RES-CHIP	33K	5%	1/10W
R3218	1-216-091-00	RES-CHIP	56K	5%	1/10W
R3219	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3220	1-216-097-11	RES-CHIP	100K	5%	1/10W
R3221	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3222	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3223	1-216-045-00	RES-CHIP	680	5%	1/10W
R3224	1-216-101-00	RES-CHIP	150K	5%	1/10W
R3225	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R3226	1-216-095-00	RES-CHIP	82K	5%	1/10W
R3227	1-216-091-00	RES-CHIP	56K	5%	1/10W
R3228	1-216-085-00	RES-CHIP	33K	5%	1/10W
R3229	1-216-025-11	RES-CHIP	100	5%	1/10W
R3230	1-216-025-11	RES-CHIP	100	5%	1/10W
R3231	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3232	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3233	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R3234	1-216-039-00	RES-CHIP	390	5%	1/10W
R3235	1-216-101-00	RES-CHIP	150K	5%	1/10W
R3236	1-216-113-00	RES-CHIP	470K	5%	1/10W
R3237	1-216-045-00	RES-CHIP	680	5%	1/10W
R3238	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3239	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3240	1-216-081-00	RES-CHIP	22K	5%	1/10W
R3241	1-216-093-91	RES-CHIP	68K	5%	1/10W
R3242	1-216-081-00	RES-CHIP	22K	5%	1/10W
R3243	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3244	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3245	1-216-097-11	RES-CHIP	100K	5%	1/10W
R3246	1-216-045-00	RES-CHIP	680	5%	1/10W
R3247	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R3248	1-216-089-11	RES-CHIP	47K	5%	1/10W
R3249	1-216-025-11	RES-CHIP	100	5%	1/10W
R3251	1-216-101-00	RES-CHIP	150K	5%	1/10W
R3252	1-216-113-00	RES-CHIP	470K	5%	1/10W
R3253	1-216-045-00	RES-CHIP	680	5%	1/10W
R3254	1-216-073-00	RES-CHIP	10K	5%	1/10W
R3255	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3256	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3257	1-216-097-11	RES-CHIP	100K	5%	1/10W
R3258	1-216-121-11	RES-CHIP	1M	5%	1/10W
R3259	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R3262	1-216-101-00	RES-CHIP	150K	5%	1/10W
R3263	1-216-093-91	RES-CHIP	68K	5%	1/10W
R3267	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3268	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3269	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3271	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R3273	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3274	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R6201	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6202	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6203	1-216-295-11	SHORT	0		
R6209	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6213	1-216-073-00	RES-CHIP	10K	5%	1/10W
R6214	1-216-073-00	RES-CHIP	10K	5%	1/10W

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The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

B C6

REF. NO.	PART NO.	DESCRIPTION			REMARK
R6219	1-216-089-11	RES-CHIP	47K	5%	1/10W
R6220	1-163-009-11	CERAMIC CHIP	0.001UF	10.00%	50V
R6245	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6246	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6254	1-216-021-00	RES-CHIP	68	5%	1/10W
R6255	1-216-308-00	RES-CHIP	4.7	5%	1/10W
R6258	1-216-021-00	RES-CHIP	68	5%	1/10W
R6259	1-216-308-00	RES-CHIP	4.7	5%	1/10W
		<TUNER>			
TU1401	8-598-508-10	TUNER, FSS BTF-LG436			
**********					
*	A-1332-110-A	C6 BOARD MOUNTED			
		**********			
	4-352-844-01	PIN, LEAD, COATING			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C701	1-162-114-00	CERAMIC	0.0047UF		2KV
C702	1-102-074-00	CERAMIC	0.001UF	10.00%	50V
C708	1-102-114-00	CERAMIC	470PF	10.00%	50V
C709	1-102-114-00	CERAMIC	470PF	10.00%	50V
C710	1-102-114-00	CERAMIC	470PF	10.00%	50V
C712	1-102-115-00	CERAMIC	560PF	10.00%	50V
C713	1-102-112-00	CERAMIC	330PF	10.00%	50V
C714	1-102-113-00	CERAMIC	390PF	10.00%	50V
C716	1-126-933-11	ELECT	100UF	20.00%	16V
C717	1-107-651-11	ELECT	4.7UF	20.00%	250V
C718	1-102-106-00	CERAMIC	100PF	10.00%	50V
C1800	1-126-964-11	ELECT	10UF	20.00%	50V
C1803	1-126-964-11	ELECT	10UF	20.00%	50V
C1804	1-126-964-11	ELECT	10UF	20.00%	50V
C1809	1-126-942-61	ELECT	1000UF	20.00%	25V
C1810	1-102-106-00	CERAMIC	100PF	10.00%	50V
		<CONNECTOR>			
CN700	1-695-915-11	TAB (CONTACT)			
CN702	1-695-915-11	TAB (CONTACT)			
CN703*	1-564-509-11	PLUG, CONNECTOR 6P			
CN704	1-695-915-11	TAB (CONTACT)			
CN712	1-564-507-11	PLUG, CONNECTOR 4P			
CN1801*	1-564-509-11	PLUG, CONNECTOR 6P			
CN1802*	1-564-506-11	PLUG, CONNECTOR 3P			
		<DIODE>			
D701	8-719-911-19	DIODE 1SS119-25			
D702	8-719-911-19	DIODE 1SS119-25			
D703	8-719-911-19	DIODE 1SS119-25			
D704	8-719-911-19	DIODE 1SS119-25			
D705	8-719-911-19	DIODE 1SS119-25			

REF. NO.	PART NO.	DESCRIPTION			REMARK
D706	8-719-911-19	DIODE 1SS119-25			
D707	8-719-911-19	DIODE 1SS119-25			
D708	8-719-911-19	DIODE 1SS119-25			
D709	8-719-911-19	DIODE 1SS119-25			
D710	8-719-911-19	DIODE 1SS119-25			
D711	8-719-911-19	DIODE 1SS119-25			
D712	8-719-911-19	DIODE 1SS119-25			
D716	8-719-911-19	DIODE 1SS119-25			
D717	8-719-070-16	DIODE NNCD9.1A-T1			
D1803	8-719-911-19	DIODE 1SS119-25			
D1804	8-719-911-19	DIODE 1SS119-25			
D1808	8-719-908-03	DIODE GP08D			
		<IC>			
IC1800	8-759-822-38	IC LA6510			
		<JACK>			
J701	⚠ 1-540-071-22	SOCKET, CRT			
		<COIL>			
L701	1-410-667-31	INDUCTOR	22UH		
L703	1-414-186-31	INDUCTOR	33UH		
L705	1-414-186-31	INDUCTOR	33UH		
L707	1-414-187-11	INDUCTOR	47UH		
		<TRANSISTOR>			
Q701	8-729-326-11	TRANSISTOR 2SC2611			
Q702	8-729-326-11	TRANSISTOR 2SC2611			
Q703	8-729-326-11	TRANSISTOR 2SC2611			
Q704	8-729-326-11	TRANSISTOR 2SC2611			
Q705	8-729-326-11	TRANSISTOR 2SC2611			
Q706	8-729-326-11	TRANSISTOR 2SC2611			
Q707	8-729-200-17	TRANSISTOR 2SA1091O-TPE2			
Q708	8-729-200-17	TRANSISTOR 2SA1091O-TPE2			
Q709	8-729-200-17	TRANSISTOR 2SA1091O-TPE2			
Q710	8-729-119-78	TRANSISTOR 2SC2785TP-HFE			
Q711	8-729-119-78	TRANSISTOR 2SC2785TP-HFE			
Q712	8-729-119-78	TRANSISTOR 2SC2785TP-HFE			
Q714	8-729-255-12	TRANSISTOR 2SC2551-0			
Q1800	8-729-119-76	TRANSISTOR 2SA1175TP-HFE			
Q1802	8-729-119-78	TRANSISTOR 2SC2785TP-HFE			
		<RESISTOR>			
R701	1-249-496-11	CARBON	100K	5%	1/2W
R705	1-216-392-11	METAL OXIDE	1.8	5%	3W
R710	1-215-923-00	METAL OXIDE	10K	5%	3W
R711	1-260-099-11	CARBON	1K	5%	1/2W
R712	1-215-923-00	METAL OXIDE	10K	5%	3W
R713	1-260-330-11	CARBON	1.5K	5%	1/2W
R714	1-215-923-00	METAL OXIDE	10K	5%	3W
R715	1-260-330-11	CARBON	1.5K	5%	1/2W
R716	1-249-405-11	CARBON	100	5%	1/4W
R717	1-249-405-11	CARBON	100	5%	1/4W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R718	1-249-405-11	CARBON	100	5%	1/4W
R719	1-215-469-00	METAL	100K	1%	1/4W
R720	1-249-923-11	CARBON	1K	5%	1/4W
R722	1-249-923-11	CARBON	1K	5%	1/4W
R723	1-215-469-00	METAL	100K	1%	1/4W
R724	1-249-923-11	CARBON	1K	5%	1/4W
R725	1-249-424-11	CARBON	3.9K	5%	1/4W
R726	1-249-424-11	CARBON	3.9K	5%	1/4W
R727	1-249-424-11	CARBON	3.9K	5%	1/4W
R728	1-249-408-11	CARBON	180	5%	1/4W
R729	1-249-408-11	CARBON	180	5%	1/4W
R730	1-249-408-11	CARBON	180	5%	1/4W
R731	1-249-401-11	CARBON	47	5%	1/4W
R732	1-249-401-11	CARBON	47	5%	1/4W
R733	1-249-401-11	CARBON	47	5%	1/4W
R734	1-247-739-11	CARBON	100	5%	1/2W
R738	1-247-807-31	CARBON	100	5%	1/4W
R739	1-247-807-31	CARBON	100	5%	1/4W
R740	1-247-807-31	CARBON	100	5%	1/4W
R747	1-215-926-00	METAL OXIDE	33K	5%	3W
R749	1-215-927-00	METAL OXIDE	47K	5%	3W
R751	1-216-490-11	METAL OXIDE	39K	5%	3W
R753	1-249-429-11	CARBON	10K	5%	1/4W
R755	1-249-427-11	CARBON	6.8K	5%	1/4W
R756	1-249-427-11	CARBON	6.8K	5%	1/4W
R757	1-249-427-11	CARBON	6.8K	5%	1/4W
R758	1-249-419-11	CARBON	1.5K	5%	1/4W
R759	1-249-419-11	CARBON	1.5K	5%	1/4W
R760	1-249-419-11	CARBON	1.5K	5%	1/4W
R1800	1-249-417-11	CARBON	1K	5%	1/4W
R1801	1-249-426-11	CARBON	5.6K	5%	1/4W
R1802	1-249-382-11	CARBON	1.2	5%	1/4W
R1803	1-249-382-11	CARBON	1.2	5%	1/4W
R1805	1-249-429-11	CARBON	10K	5%	1/4W
R1806	1-249-425-11	CARBON	4.7K	5%	1/4W
R1808	1-249-425-11	CARBON	4.7K	5%	1/4W
R1809	1-249-435-11	CARBON	33K	5%	1/4W
R1810	1-249-435-11	CARBON	33K	5%	1/4W
R1811	1-249-433-11	CARBON	22K	5%	1/4W
R1812	1-249-435-11	CARBON	33K	5%	1/4W
R1821	1-249-433-11	CARBON	22K	5%	1/4W
R1822	1-249-435-11	CARBON	33K	5%	1/4W
R1823	1-249-426-11	CARBON	5.6K	5%	1/4W
R1824	1-249-435-11	CARBON	33K	5%	1/4W
R1825	1-247-843-11	CARBON	3.3K	5%	1/4W

<VARIABLE RESISTOR>

RV702	1-241-656-11	RES, ADJ, METAL FILM 110M
RV1801	1-238-019-11	RES, ADJ, CARBON 47K

****

REF. NO.	PART NO.	DESCRIPTION			REMARK
*	A-1343-946-A	D3 BOARD MOUNTED			
		**********			

<CAPACITOR>

C2800	1-104-664-11	ELECT	47UF	20.00%	25V
C2801	1-106-220-00	MYLAR	0.1UF	10.00%	100V
C2802	1-136-155-00	FILM	0.015UF	5.00%	50V
C2803	1-129-723-00	FILM	0.056UF	5.00%	630V
C2805	1-104-664-11	ELECT	47UF	20.00%	25V
C2806	1-106-383-00	MYLAR	0.047UF	5.00%	100V
C2807	1-137-194-81	FILM	0.47UF	5.00%	50V
C2808	1-126-964-11	ELECT	10UF	20.00%	50V
C2809	1-137-194-81	FILM	0.47UF	5.00%	50V
C2810	1-106-375-12	MYLAR	0.022UF	10.00%	250V
C2811	1-126-964-11	ELECT	10UF	20.00%	50V
C2812	1-126-964-11	ELECT	10UF	20.00%	50V
C2813	1-129-708-61	FILM	0.0033UF	5.00%	630V

<CONNECTOR>

CN2800*	1-564-510-11	PLUG, CONNECTOR 7P
CN2802*	1-564-506-11	PLUG, CONNECTOR 3P
CN28031	1-695-915-11	TAB (CONTACT)

<DIODE>

D2800	8-719-302-43	DIODE ELIZ
D2801	8-719-911-19	DIODE 1SS119-25TD
D2802	8-719-911-19	DIODE 1SS119-25TD
D2803	8-719-911-19	DIODE 1SS119-25TD

<IC>

IC2800	8-759-701-59	IC NJM78M09FA
IC2801	8-759-998-98	IC LM358D

<COIL>

L280	0 1-406-989-71	INDUCTOR	0UH
L2802	1-406-987-21	INDUCTOR	4.7MH
L2803	1-406-986-21	INDUCTOR	3.3UH
L2804	1-406-678-11	INDUCTOR	15MH

<TRANSISTOR>

Q2800	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q2801	8-729-195-82	TRANSISTOR 2SC2958
Q2802	8-729-017-06	TRANSISTOR 2SC4793
Q2803	8-729-216-22	TRANSISTOR 2SA1162-G
Q2804	8-729-230-49	TRANSISTOR 2SC2712-YG

<RESISTOR>

R2800	1-249-405-11	CARBON	100	5%	1/4W
R2802	1-260-111-11	CARBON	10K	5%	1/2W
R2803	1-260-111-11	CARBON	10K	5%	1/2W
R2804	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R2805	1-216-097-11	RES-CHIP	100K	5%	1/10W

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

D3 F H

REF. NO.	PART NO.	DESCRIPTION			REMARK
R2806	1-249-421-11	CARBON	2.2K	5%	1/4W
R2807	1-249-420-11	CARBON	1.8K	5%	1/4W
R2808	1-215-857-11	METAL OXIDE	10	5%	1W
R2809	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R2810	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2811	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R2812	1-216-081-00	RES-CHIP	22K	5%	1/10W
R2813	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R2814	1-216-121-11	RES-CHIP	1M	5%	1/10W
R2815	1-216-085-00	RES-CHIP	33K	5%	1/10W
R2816	1-216-107-00	RES-CHIP	270K	5%	1/10W
R2817	1-216-107-00	RES-CHIP	270K	5%	1/10W
		<TRANSFORMER>			
T2800	1-413-059-00	TRANSFORMER, FERRITE (DFT)			
**********					
*	A-1241-443-A	F BOARD MOUNTED			
		**********			
	1-533-223-11	CLIP, FUSE			
*	4-374-846-01	COVER, CAPACITOR, CAP TYPE			
		<CAPACITOR>			
C654 ⚠	1-117-703-11	CERAMIC	0.0047UF	99% 250V	
C4601 ⚠	1-104-708-11	MYLAR	0.47UF	20.00% 250V	
C4602 ⚠	1-109-835-11	MYLAR	0.68UF	20.00% 250V	
		<CONNECTOR>			
CN4601 *	1-580-843-11	PIN, CONNECTOR (POWER)			
CN4602 *	1-580-843-11	PIN, CONNECTOR (POWER)			
CN4603	1-695-915-11	TAB (CONTACT)			
		<FUSE>			
F4601 ⚠	1-532-299-00	FUSE, TIME-LAG 5A/250V			
		<RESISTOR>			
R4601 ⚠	1-202-719-00	SOLID	1M	10% 1/2W	
		<TRANSFORMER>			
T4601	1-424-505-11	TRANSFORMER, LINE FILTER			
T4602	1-431-182-11	TRANSFORMER, LINE FILTER			
		<VARISTOR>			
VDR461	1-803-830-11	VARISTOR (ERZV14D621)			
**********					

REF. NO.	PART NO.	DESCRIPTION			REMARK
*	A-1372-887-A	H BOARD MOUNTED			
		**********			
*	4-055-304-01	HOLDER, LED			
		<CAPACITOR>			
C3900	1-136-153-00	FILM	0.01UF	5.00% 50V	
C3902	1-136-153-00	FILM	0.01UF	5.00% 50V	
C3904	1-104-664-11	ELECT	47UF	20.00% 25V	
C3905	1-126-963-11	ELECT	4.7UF	20.00% 50V	
C3906	1-126-963-11	ELECT	4.7UF	20.00% 50V	
C3910	1-104-664-11	ELECT	47UF	20.00% 16V	
C3911	1-104-664-11	ELECT	47UF	20.00% 16V	
C3912	1-102-114-00	CERAMIC	470PF	10.00% 50V	
C3913	1-126-960-11	ELECT	1UF	20.00% 50V	
		<CONNECTOR>			
CN3601 *	1-580-844-11	PIN, CONNECTOR (POWER)			
CN3602 *	1-580-844-11	PIN, CONNECTOR (POWER)			
CN3901 *	1-564-507-11	PLUG, CONNECTOR 4P			
CN3902 *	1-564-509-11	PLUG, CONNECTOR 6P			
CN3904 *	1-564-512-11	PLUG, CONNECTOR 9P			
CN3905 *	1-564-512-11	PLUG, CONNECTOR 9P			
		<DIODE>			
D3900	8-719-070-16	DIODENNCD9.1A-T1			
D3901	8-719-070-16	DIODENNCD9.1A-T1			
D3905	8-719-070-16	DIODENNCD9.1A-T1			
D3906	8-719-045-19	DIODESPB-26MVWF			
D3907	8-719-070-16	DIODENNCD9.1A-T1			
D3908	8-719-070-16	DIODENNCD9.1A-T1			
		<IC>			
IC3901	8-742-205-30	HYB IC SBX3081-01(30)			
		<JACK>			
J3901	1-750-264-11	JACK			
J3902	1-784-646-11	TERMINAL, S			
J3903	1-770-329-11	JACK, PIN 3P			
		<COIL>			
L3901	1-414-183-41	INDUCTOR	10UH		
L3902	1-414-183-41	INDUCTOR	10UH		
		<TRANSISTOR>			
Q3901	8-729-030-02	TRANSISTOR DTC144ESA			
Q3902	8-729-030-02	TRANSISTOR DTC144ESA			
		<RESISTOR>			
R3900	1-249-411-11	CARBON	330	5% 1/4W	
R3901	1-249-411-11	CARBON	330	5% 1/4W	

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

H J P2

REF. NO.	PART NO.	DESCRIPTION			REMARK
R3902	1-247-804-11	CARBON	75	5%	1/4W
R3904	1-249-429-11	CARBON	10K	5%	1/4W
R3905	1-249-429-11	CARBON	10K	5%	1/4W
R3907	1-249-426-11	CARBON	5.6K	5%	1/4W
R3908	1-249-413-11	CARBON	470	5%	1/4W
R3909	1-249-417-11	CARBON	1K	5%	1/4W
R3910	1-249-420-11	CARBON	1.8K	5%	1/4W
R3911	1-249-411-11	CARBON	330	5%	1/4W
R3912	1-247-843-11	CARBON	3.3K	5%	1/4W
R3913	1-249-429-11	CARBON	10K	5%	1/4W
R3914	1-249-411-11	CARBON	330	5%	1/4W
R3915	1-249-429-11	CARBON	10K	5%	1/4W
R3916	1-249-401-11	CARBON	47	5%	1/4W
R3917	1-247-804-11	CARBON	75	5%	1/4W
R3918	1-249-409-11	CARBON	220	5%	1/4W
R3919	1-249-409-11	CARBON	220	5%	1/4W
R3920	1-247-807-31	CARBON	100	5%	1/4W
R3921	1-247-807-31	CARBON	100	5%	1/4W
R3922	1-249-421-11	CARBON	2.2K	5%	1/4W
		<SWITCH>			
S3601 ⚠	1-571-433-21	SWITCH, PUSH (AC POWER)			
S3902	1-692-431-21	SWITCH, TACTILE			
S3903	1-692-431-21	SWITCH, TACTILE			
S3904	1-692-431-21	SWITCH, TACTILE			
S3905	1-692-431-21	SWITCH, TACTILE			
S3906	1-692-431-21	SWITCH, TACTILE			
S3907	1-692-431-21	SWITCH, TACTILE			
S3908	1-692-431-21	SWITCH, TACTILE			

****

* A-1388-288-A J BOARD MOUNTED
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<CAPACITOR>

C2410	1-126-967-11	ELECT	47UF	20.00%	50V
C2411	1-126-967-11	ELECT	47UF	20.00%	50V
C2412	1-126-967-11	ELECT	47UF	20.00%	50V
C2413	1-102-112-00	CERAMIC	330PF	10.00%	50V
C2414	1-102-112-00	CERAMIC	330PF	10.00%	50V
C2418	1-126-960-11	ELECT	1UF	20.00%	50V
C2419	1-126-960-11	ELECT	1UF	20.00%	50V

<CONNECTOR>

CN2410 *	1-564-523-11	PLUG, CONNECTOR 8P			

<DIODE>

D2410	8-719-070-16	DIODENNCD9.1A-T1			
D2411	8-719-070-16	DIODENNCD9.1A-T1			
D2412	8-719-070-16	DIODENNCD9.1A-T1			
D2414	8-719-070-16	DIODENNCD9.1A-T1			
D2415	8-719-070-16	DIODENNCD9.1A-T1			

<JACK>

J2410	1-784-623-11	BLOCK, PIN JACK 5P			

<RESISTOR>

R2410	1-247-804-11	CARBON	75	5%	1/4W
R2411	1-247-804-11	CARBON	75	5%	1/4W
R2412	1-247-804-11	CARBON	75	5%	1/4W
R2414	1-247-887-00	CARBON	220K	5%	1/4W
R2415	1-247-807-31	CARBON	100	5%	1/4W
R2417	1-247-887-00	CARBON	220K	5%	1/4W
R2418	1-247-807-31	CARBON	100	5%	1/4W
R2419	1-249-409-11	CARBON	220	5%	1/4W
R2420	1-249-409-11	CARBON	220	5%	1/4W
R2421	1-249-409-11	CARBON	220	5%	1/4W

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* A-1190-376-A P2 BOARD MOUNTED
****

<CAPACITOR>

C4300	1-164-346-11	CERAMIC CHIP	1UF		16V
C4301	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4302	1-163-031-11	CERAMIC CHIP	0.01UF		50V
C4303	1-126-960-11	ELECT	1UF	20.00%	50V
C4304	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4312	1-104-664-11	ELECT	47UF	20.00%	16V
C4314	1-126-964-11	ELECT	10UF	20.00%	50V
C4315	1-126-934-11	ELECT	220UF	20.00%	16V
C4317	1-104-664-11	ELECT	47UF	20.00%	16V
C4318	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4319	1-163-233-11	CERAMIC CHIP	18PF	5.00%	50V
C4320	1-163-233-11	CERAMIC CHIP	18PF	5.00%	50V
C4321	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4322	1-126-957-11	ELECT	0.22UF	20.00%	50V
C4323	1-163-259-91	CERAMIC CHIP	220PF	5.00%	50V
C4324	1-126-963-11	ELECT	4.7UF	20.00%	50V
C4325	1-104-664-11	ELECT	47UF	20.00%	16V
C4326	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4327	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C4329	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4330	1-126-963-11	ELECT	4.7UF	20.00%	50V
C4331	1-126-964-11	ELECT	10UF	20.00%	50V
C4332	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C4333	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4334	1-126-960-11	ELECT	1UF	20.00%	50V
C4335	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C4336	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C4337	1-164-346-11	CERAMIC CHIP	1UF		16V
C4338	1-164-346-11	CERAMIC CHIP	1UF		16V
C4339	1-164-346-11	CERAMIC CHIP	1UF		16V

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P2

REF. NO.	PART NO.	DESCRIPTION			REMARK
C4340	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4341	1-104-665-11	ELECT	100UF	20.00% 10V	
C4347	1-104-665-11	ELECT	100UF	20.00% 10V	
C4348	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4349	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V	
C4350	1-126-964-11	ELECT	10UF	20.00% 50V	
C4352	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V	
C4353	1-104-665-11	ELECT	100UF	20.00% 10V	
C4355	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4356	1-164-346-11	CERAMIC CHIP	1UF	16V	
C4357	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4359	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4362	1-163-235-11	CERAMIC CHIP	22PF	5.00% 50V	
C4363	1-163-237-11	CERAMIC CHIP	27PF	5.00% 50V	
C4364	1-104-665-11	ELECT	100UF	20.00% 10V	
C4365	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4366	1-163-031-11	CERAMIC CHIP	0.01UF	50V	
C4367	1-126-960-11	ELECT	1UF	20.00% 50V	
C4371	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V	
C4372	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4377	1-104-665-11	ELECT	100UF	20.00% 10V	
C4380	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4394	1-104-664-11	ELECT	47UF	20.00% 16V	
C4396	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4397	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4398	1-126-964-11	ELECT	10UF	20.00% 50V	
C4399	1-126-964-11	ELECT	10UF	20.00% 50V	
C4554	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
C4613	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4614	1-163-038-11	CERAMIC CHIP	0.1UF	25V	
C4615	1-163-243-11	CERAMIC CHIP	47PF	5.00% 50V	
C4617	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C4618	1-126-967-11	ELECT	47UF	20.00% 50V	
C4619	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4620	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4622	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C4623	1-163-255-11	CERAMIC CHIP	150PF	5.00% 50V	
C4624	1-163-113-00	CERAMIC CHIP	68PF	5.00% 50V	
C4625	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4626	1-163-249-11	CERAMIC CHIP	82PF	5.00% 50V	
C4628	1-164-005-11	CERAMIC CHIP	0.47UF	25V	
C4629	1-163-255-11	CERAMIC CHIP	150PF	5.00% 50V	
C4630	1-163-113-00	CERAMIC CHIP	68PF	5.00% 50V	
C4643	1-126-933-11	ELECT	100UF	20.00% 16V	
C4644	1-165-319-11	CERAMIC CHIP	0.1UF	50V	
		<CONNECTOR>			
CN4301	1-764-811-11	CONNECTOR, BOARD TO BOARD 10P			
CN4302	1-764-811-11	CONNECTOR, BOARD TO BOARD 10P			
CN4501*	1-564-511-11	PLUG, CONNECTOR 8P			
CN4502*	1-564-508-11	PLUG, CONNECTOR 5P			
		<DIODE>			
D4501	8-719-158-35	DIODE RD9.1SB			

REF. NO.	PART NO.	DESCRIPTION		REMARK
		<FERRITE BEAD>		
FB4301	1-410-397-21	FERRITE	1.1UH	
		<FILTER>		
FL4301	1-236-728-41	ENCAPSULATED COMPONENT		
		<IC>		
IC4301	8-759-655-57	IC SDA9288XE-B0121		
IC4302	8-759-568-62	IC BA7606F-E2		
IC4303	8-752-090-41	IC CXA2139S		
IC4502	8-759-439-64	IC HEF4053BT		
IC4503	8-759-439-64	IC HEF4053BT		
		<CHIP CONDUCTOR>		
JR4300	1-216-295-11	SHORT	0	
JR4301	1-216-295-11	SHORT	0	
JR4305	1-216-295-11	SHORT	0	
JR4500	1-216-295-11	SHORT	0	
JR4502	1-216-295-11	SHORT	0	
JR4505	1-216-295-11	SHORT	0	
		<COIL>		
L4302	1-412-537-31	INDUCTOR	100UH	
L4304	1-408-603-31	INDUCTOR	10UH	
L4305	1-408-603-31	INDUCTOR	10UH	
L4306	1-408-603-31	INDUCTOR	10UH	
L4307	1-408-412-00	INDUCTOR	18UH	
L4308	1-408-611-31	INDUCTOR	47UH	
L4309	1-408-603-31	INDUCTOR	10UH	
L4310	1-408-611-31	INDUCTOR	47UH	
L4311	1-408-603-31	INDUCTOR	10UH	
L4312	1-408-603-31	INDUCTOR	10UH	
L4315	1-414-856-11	INDUCTOR	10UH	
L4316	1-414-856-11	INDUCTOR	10UH	
L4317	1-414-856-11	INDUCTOR	10UH	
L4501	1-414-856-11	INDUCTOR	10UH	
L4506	1-414-857-11	INDUCTOR	100UH	
L4507	1-414-187-11	INDUCTOR	47UH	
L4508	1-414-187-11	INDUCTOR	47UH	
L4509	1-414-857-11	INDUCTOR	100UH	
L4510	1-414-187-11	INDUCTOR	47UH	
L4511	1-414-187-11	INDUCTOR	47UH	
		<TRANSISTOR>		
Q4301	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q4302	8-729-216-22	TRANSISTOR 2SA1162-G		
Q4303	8-729-424-59	TRANSISTOR UN2212		
Q4304	8-729-027-43	TRANSISTOR DTC114EK-T146		
Q4305	8-729-027-43	TRANSISTOR DTC114EK-T146		
Q4306	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q4307	8-729-027-43	TRANSISTOR DTC114EK-T146		
Q4313	8-729-216-22	TRANSISTOR 2SA1162-G		

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REF. NO.	PART NO.	DESCRIPTION	REMARK
Q4314	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4315	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4327	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4329	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4362	8-729-216-22	TRANSISTOR 2SA1162-YG	
Q4363	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4364	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4365	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4366	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4368	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4369	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4371	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4375	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4501	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4502	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4503	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4505	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4507	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4509	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4510	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4511	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4514	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4515	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4516	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4520	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4522	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4523	8-729-216-22	TRANSISTOR 2SA1162-YG	

<RESISTOR>

R4300	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4301	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R4302	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4304	1-216-089-11	RES-CHIP	47K	5%	1/10W
R4305	1-216-025-11	RES-CHIP	100	5%	1/10W
R4306	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4307	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4308	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4309	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R4310	1-164-346-11	CERAMIC CHIP	1UF		16V
R4311	1-216-025-11	RES-CHIP	100	5%	1/10W
R4312	1-216-025-11	RES-CHIP	100	5%	1/10W
R4313	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4314	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4315	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4316	1-216-025-11	RES-CHIP	100	5%	1/10W
R4317	1-216-025-11	RES-CHIP	100	5%	1/10W
R4319	1-216-045-00	RES-CHIP	680	5%	1/10W
R4320	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4321	1-216-045-00	RES-CHIP	680	5%	1/10W
R4326	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4327	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4328	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R4330	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4332	1-216-089-11	RES-CHIP	47K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R4333	1-216-025-11	RES-CHIP	100	5%	1/10W
R4334	1-216-025-11	RES-CHIP	100	5%	1/10W
R4335	1-216-025-11	RES-CHIP	100	5%	1/10W
R4336	1-216-041-00	RES-CHIP	470	5%	1/10W
R4337	1-216-041-00	RES-CHIP	470	5%	1/10W
R4338	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4339	1-216-041-00	RES-CHIP	470	5%	1/10W
R4340	1-216-085-00	RES-CHIP	33K	5%	1/10W
R4341	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4344	1-216-295-11	SHORT	0		
R4345	1-216-295-11	SHORT	0		
R4346	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4347	1-216-295-11	SHORT	0		
R4348	1-216-085-00	RES-CHIP	33K	5%	1/10W
R4349	1-216-025-11	RES-CHIP	100	5%	1/10W
R4350	1-216-085-00	RES-CHIP	33K	5%	1/10W
R4351	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4352	1-216-041-00	RES-CHIP	470	5%	1/10W
R4353	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4354	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4355	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4356	1-208-778-11	METAL CHIP	680	0.5%	1/10W
R4358	1-208-776-11	METAL CHIP	560	0.5%	1/10W
R4376	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4377	1-216-047-91	RES-CHIP	820	5%	1/10W
R4378	1-216-047-91	RES-CHIP	820	5%	1/10W
R4379	1-208-780-11	METAL CHIP	820	0.5%	1/10W
R4380	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4382	1-216-025-11	RES-CHIP	100	5%	1/10W
R4383	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R4384	1-216-079-00	RES-CHIP	18K	5%	1/10W
R4385	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4386	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4387	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4388	1-216-025-11	RES-CHIP	100	5%	1/10W
R4389	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4390	1-216-025-11	RES-CHIP	100	5%	1/10W
R4391	1-216-025-11	RES-CHIP	100	5%	1/10W
R4392	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4393	1-216-025-11	RES-CHIP	100	5%	1/10W
R4394	1-216-075-00	RES-CHIP	12K	5%	1/10W
R4395	1-216-025-11	RES-CHIP	100	5%	1/10W
R4396	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4398	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4401	1-216-295-11	SHORT	0		
R4403	1-216-025-11	RES-CHIP	100	5%	1/10W
R4408	1-216-041-00	RES-CHIP	470	5%	1/10W
R4414	1-216-025-11	RES-CHIP	100	5%	1/10W
R4416	1-216-041-00	RES-CHIP	470	5%	1/10W
R4417	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4434	1-216-045-00	RES-CHIP	680	5%	1/10W
R4435	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4506	1-216-025-11	RES-CHIP	100	5%	1/10W
R4507	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4508	1-216-073-00	RES-CHIP	10K	5%	1/10W
R4511	1-216-033-00	RES-CHIP	220	5%	1/10W
R4512	1-216-005-00	RES-CHIP	15	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R4515	1-216-041-00	RES-CHIP	470	5%	1/10W
R4516	1-216-025-11	RES-CHIP	100	5%	1/10W
R4517	1-216-075-00	RES-CHIP	12K	5%	1/10W
R4520	1-216-079-00	RES-CHIP	18K	5%	1/10W
R4522	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4523	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4528	1-216-033-00	RES-CHIP	220	5%	1/10W
R4529	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4531	1-216-045-00	RES-CHIP	680	5%	1/10W
R4537	1-216-041-00	RES-CHIP	470	5%	1/10W
R4538	1-216-041-00	RES-CHIP	470	5%	1/10W
R4540	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4541	1-216-041-00	RES-CHIP	470	5%	1/10W
R4542	1-216-041-00	RES-CHIP	470	5%	1/10W
R4543	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4545	1-216-041-00	RES-CHIP	470	5%	1/10W
R4547	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4548	1-216-025-11	RES-CHIP	100	5%	1/10W
R4549	1-216-075-00	RES-CHIP	12K	5%	1/10W
R4551	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4552	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4553	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4554	1-216-033-00	RES-CHIP	220	5%	1/10W
R4556	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4559	1-216-041-00	RES-CHIP	470	5%	1/10W
R4560	1-216-041-00	RES-CHIP	470	5%	1/10W
R4561	1-216-041-00	RES-CHIP	470	5%	1/10W
R4562	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4563	1-216-041-00	RES-CHIP	470	5%	1/10W
R4566	1-216-041-00	RES-CHIP	470	5%	1/10W
R4567	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4568	1-216-041-00	RES-CHIP	470	5%	1/10W
R4569	1-216-049-11	RES-CHIP	1K	5%	1/10W

<CRYSTAL>

X4301	1-781-134-21	VIBRATOR, CRYSTAL
X4302	1-781-132-21	VIBRATOR, CRYSTAL
X4303	1-760-095-21	VIBRATOR, CRYSTAL

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* A-1347-164-A V1 BOARD COMPLETE
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<CAPACITOR>

C801	1-104-664-11	ELECT	47UF	20.00%	16V
C805	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C806	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C814	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V
C815	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C816	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C817	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C818	1-163-239-11	CERAMIC CHIP	33PF	5.00%	50V
C820	1-163-239-11	CERAMIC CHIP	33PF	5.00%	50V
C821	1-163-038-11	CERAMIC CHIP	0.1UF		25V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C822	1-163-009-11	CERAMIC CHIP	0.001UF	10.00%	50V
C823	1-126-933-11	ELECT	100UF	20.00%	16V
C826	1-126-963-11	ELECT	4.7UF	20.00%	50V
C829	1-163-113-00	CERAMIC CHIP	68PF	5.00%	50V
C830	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C831	1-126-933-11	ELECT	100UF	20.00%	16V
C832	1-126-964-11	ELECT	10UF	20.00%	50V
C835	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C837	1-126-933-11	ELECT	100UF	20.00%	16V

<CONNECTOR>

CN801	* 1-774-812-11	CONNECTOR, BOARD TO BOARD 7P	
CN803	* 1-774-812-11	CONNECTOR, BOARD TO BOARD 7P	

<DIODE>

D802	8-719-914-44	DIODE DAP202K
D803	8-719-105-46	DIODE RD3.3M-B2
D804	8-719-105-91	DIODE RD5.6M-B2

<FERRITE BEAD>

FB801	1-410-397-21	FERRITE	1.1UH
FB802	1-410-397-21	FERRITE	1.1UH
FB803	1-410-397-21	FERRITE	1.1UH
FB804	1-410-682-31	INDUCTOR	470UH
FB805	1-410-397-21	FERRITE	1.1UH

<IC>

IC801	8-759-476-87	IC SAA5261

<CHIP CONDUCTOR>

JR800	1-216-295-11	SHORT	0
JR801	1-216-295-11	SHORT	0
JR802	1-216-295-11	SHORT	0
JR804	1-216-295-11	SHORT	0
JR805	1-216-295-11	SHORT	0

<TRANSISTOR>

Q801	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q803	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q805	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q806	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q807	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q808	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q810	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q811	8-729-019-01	TRANSISTOR 2SD2394-EF
Q817	8-729-900-53	TRANSISTOR DTC114EK

<RESISTOR>

R800	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R801	1-216-295-11	SHORT	0		
R802	1-216-025-11	RES-CHIP	100	5%	1/10W
R803	1-216-295-11	SHORT	0		
R804	1-216-295-11	SHORT	0		

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R805	1-216-295-11	SHORT	0		
R807	1-216-295-11	SHORT	0		
R813	1-216-295-11	SHORT	0		
R820	1-216-073-00	RES-CHIP	10K	5%	1/10W
R821	1-216-083-00	RES-CHIP	27K	5%	1/10W
R822	1-216-025-11	RES-CHIP	100	5%	1/10W
R824	1-216-295-11	SHORT	0		
R825	1-216-295-11	SHORT	0		
R827	1-216-295-11	SHORT	0		
R828	1-216-025-11	RES-CHIP	100	5%	1/10W
R829	1-216-025-11	RES-CHIP	100	5%	1/10W
R830	1-216-295-11	SHORT	0		
R831	1-216-295-11	SHORT	0		
R832	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R835	1-216-295-11	SHORT	0		
R839	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R841	1-216-025-11	RES-CHIP	100	5%	1/10W
R842	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R843	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R844	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R845	1-216-049-11	RES-CHIP	1K	5%	1/10W
R846	1-216-049-11	RES-CHIP	1K	5%	1/10W
R847	1-216-049-11	RES-CHIP	1K	5%	1/10W
R848	1-216-049-11	RES-CHIP	1K	5%	1/10W
R849	1-216-049-11	RES-CHIP	1K	5%	1/10W
R850	1-216-105-91	RES-CHIP	220K	5%	1/10W
R851	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R853	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R857	1-216-077-91	RES-CHIP	15K	5%	1/10W
R861	1-216-049-11	RES-CHIP	1K	5%	1/10W
R862	1-260-095-11	CARBON	470	5%	1/2W
R863	1-216-049-11	RES-CHIP	1K	5%	1/10W
R864	1-216-041-00	RES-CHIP	470	5%	1/10W
R866	1-215-880-00	METAL OXIDE	10	5%	2W
R871	1-216-037-00	RES-CHIP	330	5%	1/10W
R879	1-216-073-00	RES-CHIP	10K	5%	1/10W
R880	1-216-041-00	RES-CHIP	470	5%	1/10W
R882	1-216-049-11	RES-CHIP	1K	5%	1/10W
R884	1-216-025-11	RES-CHIP	100	5%	1/10W
		<CRYSTAL>			
X801	1-578-774-11	VIBRATOR, CRYSTAL			

****

*	A-1342-580-A	VM1 BOARD MOUNTED			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C5900	1-102-115-00	CERAMIC	560PF	10.00%	50V
C5902	1-104-661-91	ELECT	330UF	20.00%	16V
C5903	1-161-830-00	CERAMIC	0.0047UF		500V
C5905	1-126-925-11	ELECT	470UF	20.00%	10V
C5906	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5907	1-107-638-11	ELECT	33UF	20.00%	160V
C5908	1-106-383-00	MYLAR	0.047UF	10.00%	200V
C5909	1-126-933-11	ELECT	100UF	20.00%	16V
C5910	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5911	1-107-949-11	ELECT	2.2UF	20.00%	160V
C5912	1-104-999-11	MYLAR	0.1UF	10.00%	200V
C5913	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5914	1-126-933-11	ELECT	100UF	20.00%	16V
C5916	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5917	1-126-925-11	ELECT	470UF	20.00%	10V
C5918	1-102-244-00	CERAMIC	220PF	10.00%	500V
C5919	1-136-165-00	FILM	0.1UF	5.00%	50V
		<CONNECTOR>			
CN2801*	1-564-506-11	PLUG, CONNECTOR 3P			
CN5901*	1-564-510-11	PLUG, CONNECTOR 7P			
CN5904*	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P			
		<DIODE>			
D5901	8-719-911-19	DIODE 1SS119-25			
D5902	8-719-110-88	DIODE RD39ES-B2			
D5903	8-719-911-19	DIODE 1SS119-25			
D5904	8-719-110-88	DIODE RD39ES-B2			
D5905	8-719-911-19	DIODE 1SS119-25			
D5906	1-249-406-11	CARBON	120	5%	1/4W
D5907	1-249-406-11	CARBON	120	5%	1/4W
		<COIL>			
L5901	1-414-187-11	INDUCTOR	47UH		
		<TRANSISTOR>			
Q5901	8-729-230-45	TRANSISTOR 2SC2458TP-YGR			
Q5902	8-729-809-26	TRANSISTOR 2SA1606-E			
Q5903	8-729-230-45	TRANSISTOR 2SC2458-YGR			
Q5904	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q5905	8-729-230-45	TRANSISTOR 2SC2458-YGR			
Q5906	8-729-809-29	TRANSISTOR 2SC4159-E			
Q5907	8-729-230-45	TRANSISTOR 2SC2458-YGR			
		<RESISTOR>			
R5901	1-249-401-11	CARBON	47	5%	1/4W
R5902	1-249-414-11	CARBON	560	5%	1/4W
R5903	1-247-734-11	CARBON	39	5%	1/2W
R5904	1-249-411-11	CARBON	330	5%	1/4W
R5905	1-249-417-11	CARBON	1K	5%	1/4W
R5906	1-249-417-11	CARBON	1K	5%	1/4W
R5907	1-249-417-11	CARBON	1K	5%	1/4W
R5908	1-249-383-11	CARBON	1.5	5%	1/4W
R5909	1-249-409-11	CARBON	220	5%	1/4W
R5910	1-249-403-11	CARBON	68	5%	1/4W
R5911	1-249-439-11	CARBON	68K	5%	1/4W
R5912	1-249-437-11	CARBON	47K	5%	1/4W

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

VM1

REF. NO.	PART NO.	DESCRIPTION			REMARK
R5914	1-249-403-11	CARBON	68	5%	1/4W
R5915	1-249-429-11	CARBON	10K	5%	1/4W
R5916	1-249-419-11	CARBON	1.5K	5%	1/4W
R5917	1-249-416-11	CARBON	820	5%	1/4W
R5918	1-249-429-11	CARBON	10K	5%	1/4W
R5919	1-249-417-11	CARBON	1K	5%	1/4W
R5920	1-249-439-11	CARBON	68K	5%	1/4W
R5921	1-216-476-11	METAL OXIDE	180	5%	3W
R5922	1-249-414-11	CARBON	560	5%	1/4W
R5923	1-249-383-11	CARBON	1.5	5%	1/4W
R5925	1-249-400-11	CARBON	39	5%	1/4W
R5927	1-249-416-11	CARBON	820	5%	1/4W
R5929	1-215-880-00	METAL OXIDE	10	5%	2W

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MISCELLANEOUS

1-202-818-00	RES, SOLID 1.0K	
1-251-658-21	SPLITTER RF	
⚠ 1-419-294-11	COIL, DEGAUSSING	
1-452-032-00	MAGNET,DISC	
1-452-896-11	COIL, NA ROTATION (RT200)	
1-452-094-00	CIRCULAR DISC MAGNET B	
1-452-896-11	COIL, NA ROTATION (RT200)	
⚠ 1-467-525-21	CAP BLOCK, HIGH-VOLTAGE	
1-529-190-11	SPEAKER (5CM)	
1-529-563-11	SPEAKER (15X6.5CM)	

REF. NO.	PART NO.	DESCRIPTION	REMARK
	1-555-110-00	P-P CABLE	
⚠	1-574-062-11	CORD, POWER (WITH CONNECTOR) 2.5A/250V	
	8-451-494-31	DEFLECTION YORK Y29RSA-M2	
	8-453-011-11	NA299-M	
⚠	8-735-056-01	PICTURE TUBE M68LNHO70X	

ACCESSORIES AND PACKING MATERIALS

3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)	
4-029-168-01	BAG, PROTECTION	
4-065-210-01	JOINT	
4-078-793-11	MANUAL, INSTRUCTION	
4-078-945-01	CUSHION(LOWER)(ASSY)	
4-078-948-01	CUSHION(UPPER)(ASSY)	
4-078-951-01	INDIVIDUAL CARTON	
4-079-400-01	TRAY	
4-392-003-11	BAND, HOLD	
4-392-004-11	CLIP	

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REMOTE COMMANDER

1-418-040-11	REMOTE COMMANDER (RM-953)
4-978-977-01	BATTERY COVER, REMOTE COMMANDER

9-872-216-01

Sony Corporation
Sony Technology Malaysia Sdn. Bhd.
Visual Entertainment General Area

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